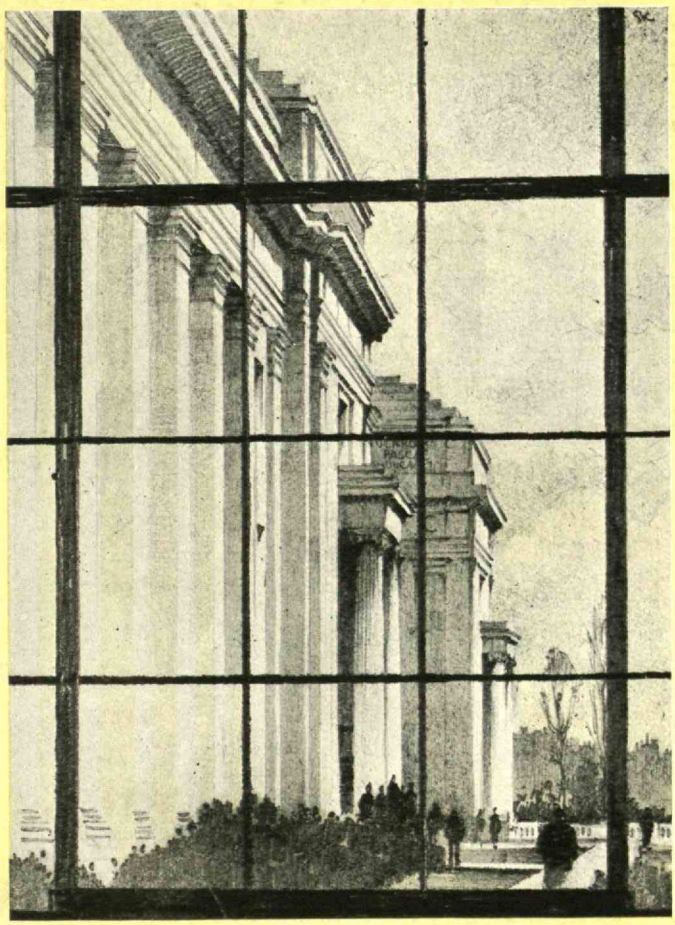
THE TECHNOLOGY REVIEW



MARCH
1926

RELATING TO THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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7 years

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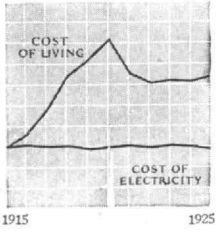

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THE TECHNOLOGY REVIEW

RELATING TO THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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Contents for March, 1926

COVER DESIGN BY SAMUEL CHAMBERLAIN, '18

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CHARLES HAYDEN, '90, *President*
CHARLES W. AIKEN, '91; SAMUEL C. PRESCOTT, '94 } *Vice-Presidents*
ORVILLE B. DENISON, '11, *Secretary-Treasurer*

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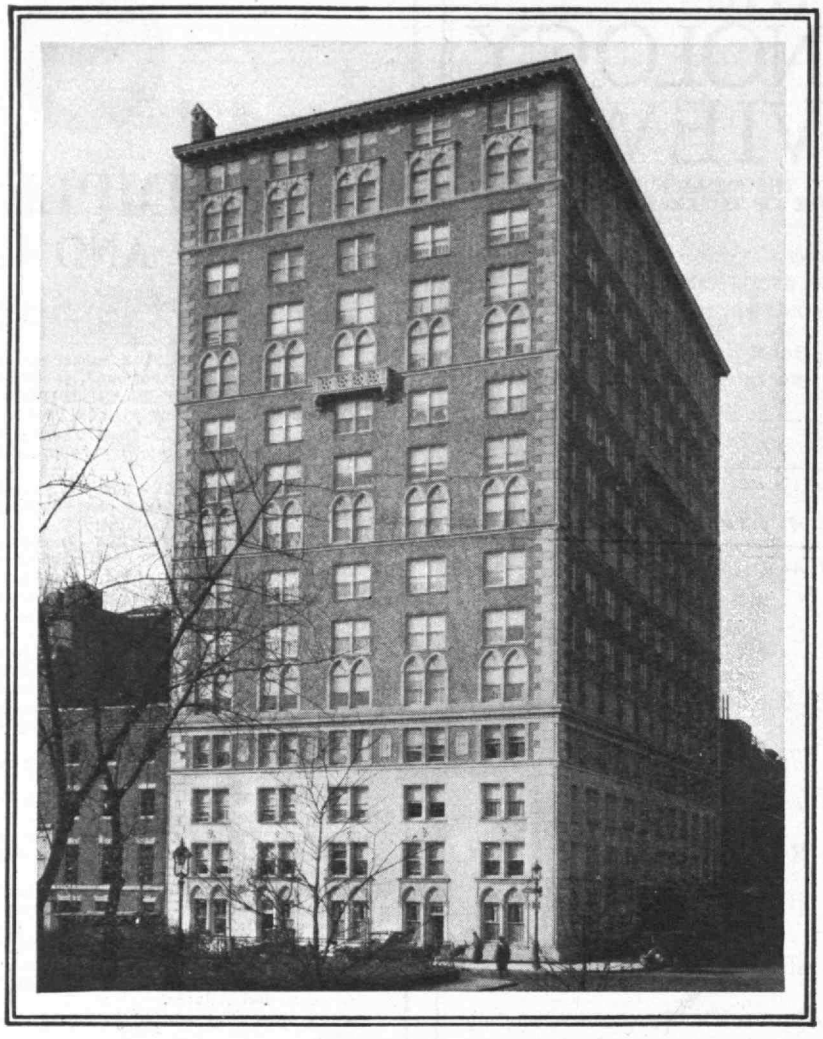

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The
TECHNOLOGY REVIEW
RELATING TO THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY
VOLUME XXVIII · · · MARCH, 1926 · · · NUMBER 5

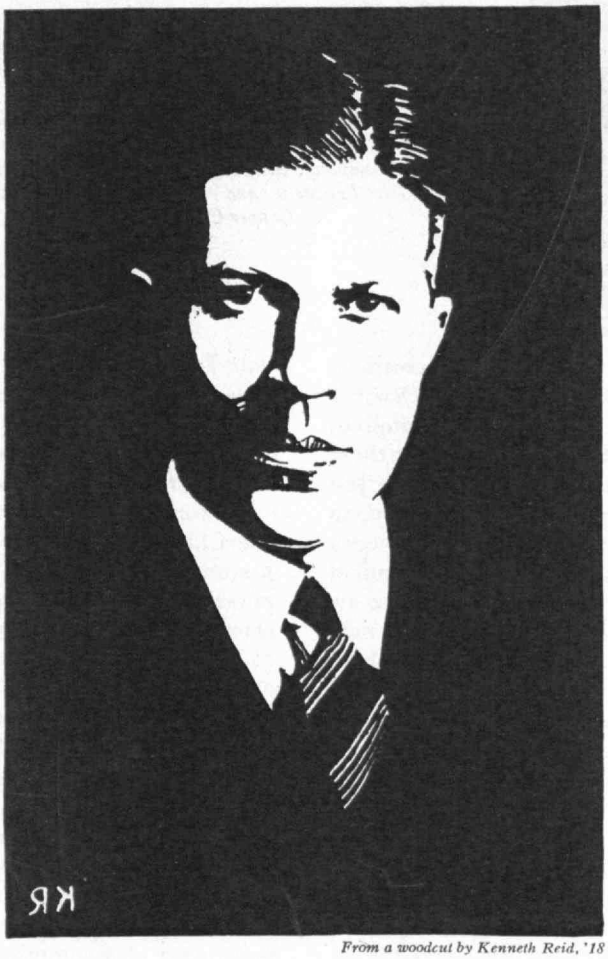
The Past Month

CHARLES HAYDEN, '90, and his fellow Alumni last June acceded to their offices in the personnel of the Alumni Association for one year. No body is there quite so forward looking as the Nominating Committee of the Association. Six months after the assumption of office the Committee starts upon its diligent search for the inevitable successors. The time is none too long; the accolade must be proffered; the acceptances must be in hand; candidacies must be advertised; ballots must be printed and distributed; sixty days must be permitted to the dilatory members of the alumni body to file their returns; tellers must be appointed, ballots counted, the results triumphantly announced. Thus, it will be May before definite word goes to the successor candidates.

Auspicious, however, is this year's beginning. For President of the Association during the year 1926–1927, the sole nominee is Elisha Lee, '92, Vice-President in charge of operations of the Pennsylvania Railroad. Mr. Lee is a graduate of the Department of Civil Engineering, a term member of the Corporation, a former commencement orator (in 1923) and an Alumnus whose name is writ equally large in the annals of the Institute and the outer world.

For Vice-President the name submitted for the action of the Alumni is that of Henry F. Bryant, '87. Like Mr. Lee Mr. Bryant graduated in Civil Engineering. Unlike Mr. Lee he claims it now as a profession and is a past officer of the American Society of Civil Engineers. Like other Vice-Presidents his term will be for two years.

For the Executive Committee the names of Edward L. Moreland, '07, partner of Dugald C. Jackson, Head of the Institute's Department of Electrical Engineering, in the firm of Jackson and Moreland, as the senior member; H. B. Richmond, '14, Treasurer of the General Radio Company as the junior. For representatives at large the Nominating Committee chose B. C. Batcheller, '86, of Wallingford, Vt.; J. C. Boyd, '93, of Portland, Maine; Frank Cheney Jr., '82, of South Manchester, Conn.; Charles G. Hyde, '96, of Berkeley, Calif.; Arthur S. More, '02, of Rochester, N. Y.; thus achieving a nice geographical balance with the center of gravity somewhere close to Kalamazoo, Michigan.



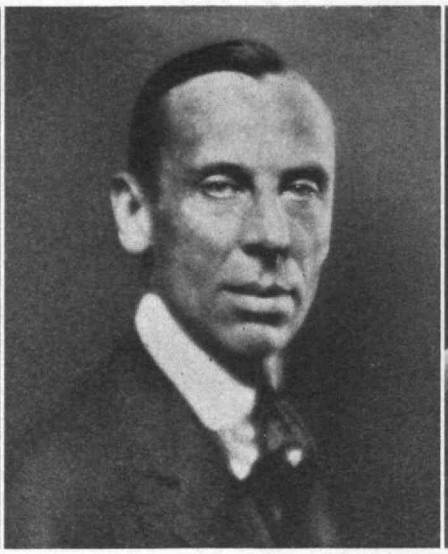
From a woodcut by Kenneth Reid, '18

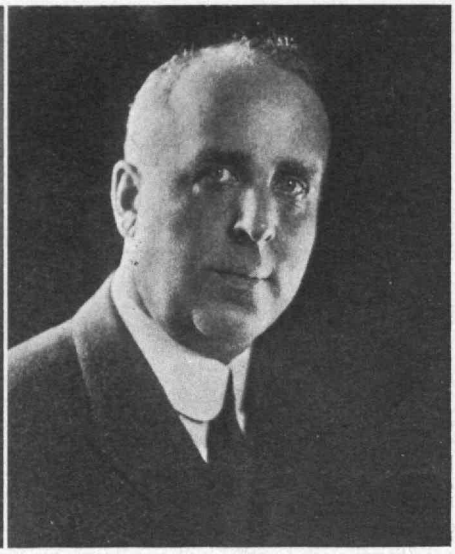
THOMAS C. DESMOND, '09

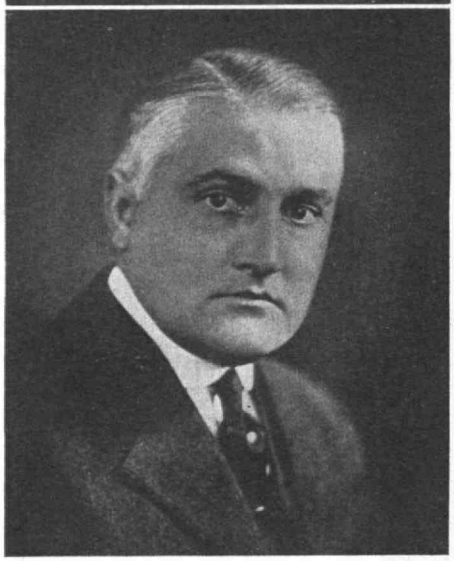
President of the Technology Club of New York, originator of the National Technology Center idea, who was a prominent figure at the Phantom Dinner at the Waldorf-Astoria in New York on January 19

MORE exalted, perhaps, than the task of picking the slate for the Alumni Association is the responsibility which devolves upon the Nominating Committee in the choice of those names which shall be voted upon for election to term membership on the Institute's Corporation. Time there was, of course, when the Corporation was an outside governing body composed of public-spirited men whose sole connection with the Institute was that they were its legal government. The steady operation over a number of years of the alumni participation idea has now made it inevitable that the great bulk of the Institute's trustees are themselves its products and the choices of the Nominating Committees of previous years have, in great measure, determined the present personnel of life members of the Corporation as well as term members.

Under the terms of what is now referred to as the Bemis Plan, nine men are







At the top, left to right: F. B. Jewett, V, '03, Vice-President American Telephone and Telegraph Company; A. P. Sloan Jr., VI, '95, President General Motors Corporation; P. W. Litchfield, X, '96, Vice-President and General Manager Goodyear Tire and Rubber Company. Below to the left: L. S. Cates, III, '02, Vice-President and General Manager Utah Copper Company

Corporation Nominees

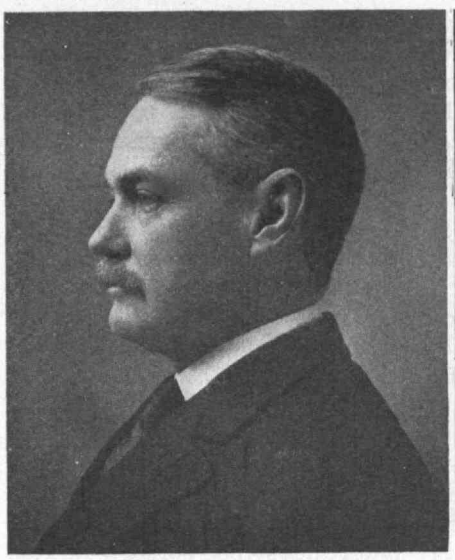
annually nominated to fill three possible positions. Previous to the oratory of Mr. Bemis which, on October 27, 1924, produced a vote in the Alumni Council to change matters, six men had been nominated for these three positions and some alumni citizens had been left unhappy and disgruntled by defeat. The new plan, in the words of James P. Munroe, '82, went on the theory that if there were six defeated candidates instead of only three, each would be only "half as sore." The arrangement now is, therefore, that of the total of nine candidates, six are chosen from New England and New York State, and three from outside this district.

For membership on the Corporation, term to last until June, 1931, the following have been nominated from New England and New York: Frank B. Jewett, '03, Vice-President of the American Telephone and Telegraph Company, New York City; Allan W. Rowe, '01, Director of Research, Evans Memorial, Boston; John R. Macomber, '97, President of Harris, Forbes and Company, Boston; William J. Knapp, '06, Vice-President of the Union Carbide and Carbon Corporation, New York City; Alfred P. Sloan Jr., '95, President of the General Motors Corporation, New York City; Zenas W. Bliss, '89, Chairman of the State Tax Commission, Providence, R. I.

Outside of New England and New York are the following nominees: Paul W. Litchfield, '96, Vice-President and General Manager of the Goodyear Tire and Rubber Company, Akron, Ohio; John T. Dorrance, '95, President of the Campbell Soup Company, Camden, N. J.; Louis S. Cates, '02, of the Utah Copper Company, Salt Lake City, Utah. From these nine, three will be chosen within the next ninety days by those members of the Alumni Association whose classes have been graduated more than five years and who show sufficient interest to return their ballots.

Senior on the list, it will be observed, is Mr. Bliss in the Class of '89; junior on the list, and, if successful, junior to a considerable degree beyond most other Corporation members, will be Mr. Knapp. At present no class is represented on the Corporation later than that of 1909, represented now by Charles R. Main.

THE 118th meeting of the Alumni Council held in Walker Memorial on January 25, marked the definite start of the activity which aims at the raising of an Alumni Dormitory Fund to be created and expended in accord with the announcement of President Hayden in the January Review. The Council, which, upon this occasion, met with the Association of Class Secretaries, voted unanimously to authorize the appointment of a committee of five to coöperate with the Class Secretaries to the end that a fund of $1,000,000 be raised to make possible the erection of ten additional dormitory units, each housing forty men. President Hayden is to appoint the committee.



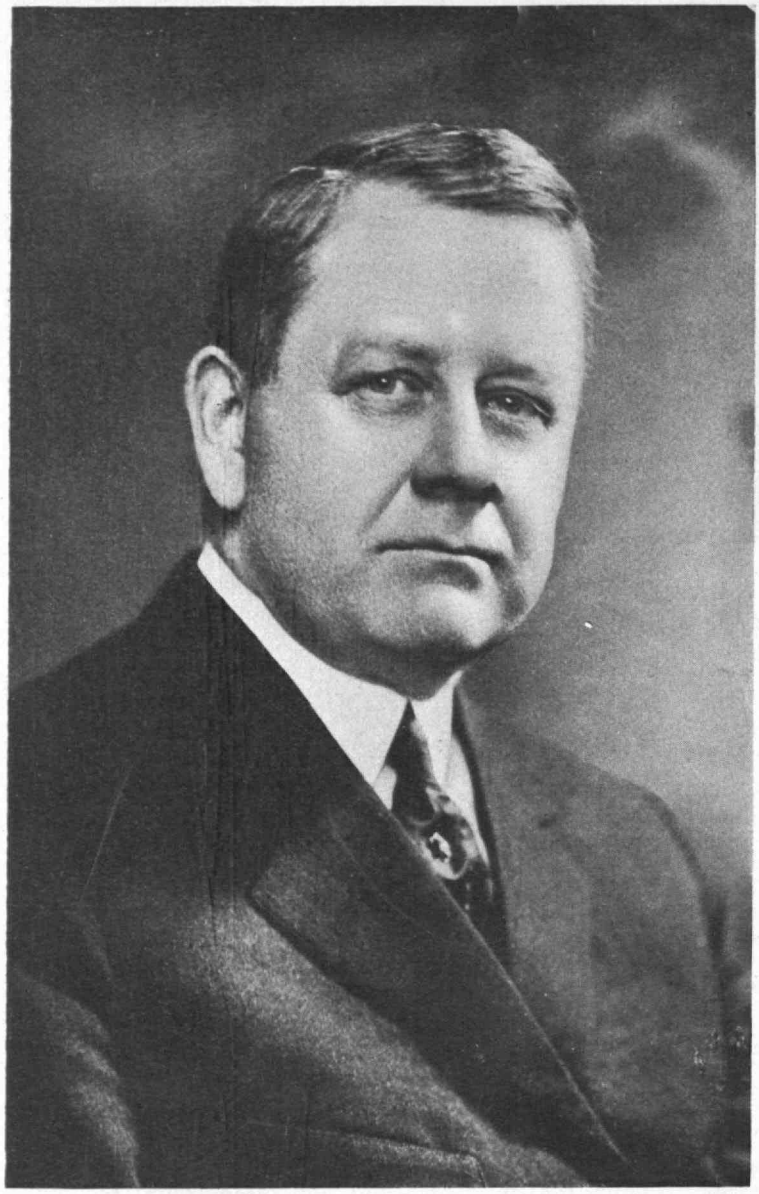
for Term Membership

At the top, left to right: Z. W. Bliss, II, '89, Chairman State Tax Commission of Rhode Island; J. T. Dorrance, V, '95, President Campbell Soup Company; A. W. Rowe, X, '01, Director of Research, Evans Memorial, Boston. Below, to the right: W. J. Knapp, II, '06, Vice-President Union Carbide and Carbon Corporation. A photograph of J. R. Macomber, '97, President Harris, Forbes and Company, was unobtainable

To lend financial solidity to the evening's speeches Henry A. Morss, '93, Assistant Treasurer of the Institute, was on hand to present some points necessary in the consideration of the project. He outlined several options through which the campaign might proceed. There was some discussion of the manner in which classes, graduated ten years or less and not yet arrived at the plutocratic stage, could be helpful to the limit of their admittedly small means. Henry F. Bryant, '87, contributed the interesting suggestion that since a unit containing forty rooms would cost about $100,000 the cost of one room was thus approximately $2500, and that some classes not able to raise sufficient funds for a larger project might give sufficient money for one room which would then be designated by some suitable inscription on its door. Other classes, somewhat more opulent, might perhaps give sufficient funds for a floor. George E. Russell, '00, made the suggestion that interest-bearing bonds or shares of stock to have a value of $1000 each might be utilized and the man purchasing such a bond or share would receive 4% on his investment for ten years, after which time interest would stop and he would surrender the principal. By this means, Professor Russell thought, the agony of separation might materially be lightened, although Mr. Morss did not feel a strong thrill of enthusiasm for the idea.

EARLIER in the evening the Council had been placed in a happy, receptive and plastic frame of mind by a straightforward account, full of robust humor, given by Professor L. F. Hamilton, '14, Chairman of the Dormitory Board, on life as it is lived in the existing student quarters. Hazing, said Professor Hamilton, in the ancient and often brutal technique which was in vogue when our fathers went to college no longer exists. Boys still remain boys, but the excess spirits of the present day are directed in a healthier and more humane direction than before. His address had the definite effect of impressing upon the minds of his listeners the fact that life in the dormitories today is almost a necessary adjunct to the full civilizing process which an educational institution is supposed to work upon its young men. The moral which adorned the tale was obvious to everyone.

ON January 25, 1921, William Thompson Sedgwick, Head of the Department of Biology and Public Health, died of heart failure. Since 1922, formally dedicated to his honor, biologists of distinguished eminence in some subject within the scope of biology and public health have each year been chosen to deliver a "William Thompson Sedgwick Memorial Lecture" for the purpose of commemorating his services to Biology and Public Health. The first year, Edmund B. Wilson, of Columbia University, was the lecturer; in the second, William H. Welch, of Johns Hopkins; in the



ELISHA LEE, '92

Vice-President in charge of operation of the Pennsylvania Railroad who has been chosen as sole nominee for the presidency of the Alumni Association for the year 1926–1927

third, W. J. V. Osterhout, of Harvard. This year, in Huntington Hall, on February 12, Charles Value Chapin, Superintendent of Health of Providence, R. I., and perhaps the most illustrious worker in the field of municipal health service in the present day, delivered the lecture, the title of which was "Changes in Type of Contagious Disease."

Dr. Chapin graduated from Brown University in 1876, and from the Belleview Hospital Medical College in 1879. He has been Superintendent of Health in Providence since 1884. From 1913 to 1922 he was a lecturer in the Harvard-Technology School of Public Health. He was a special agent for the American Medical Association for study of state sanitation in 1913. He is the author of "Municipal Sanitation"; "The Sources and Modes of Infection"; "State Public Health Work"; and "How to Avoid Infection." He is a fellow of the American Academy of Arts and Sciences, and of the Royal Society of Medicine, in England.

Samuel C. Prescott, '94, Professor Sedgwick's successor, heads the committee in charge of the lectureship.

AS Aldred Lecturer on January 22 (the lecture being the fourth of the present year series) Salmon W. Wilder, '91, President of the Merrimac Chemical Company, addressed the fourth-year and graduate students in Room 10–250 on the subject of "Chemical Development and the Graduate." Mr. Wilder, who is a term member of the Corporation, chose to draw the historic parallel between the industrial world which confronted him on his graduation and which will confront the young men of the present day upon theirs. He pointed out the extraordinary degree to which scientific methods have replaced those altogether empirical and was at pains to emphasize the importance of the work which Technology graduates have done in the past score of years in enlightening the practical man of the elder day on modern ideas of technical economy.

A practical man, said Mr. Wilder, is, after all, something more than one who in the current cynical phrase repeats the mistakes of his fathers. Very often he was a man with considerable knowledge and understanding of his work but a man who achieved his results too slowly and painfully by the old methods of cut-and-try to be properly efficient in the present day. The great virtue which the youthful Technology graduate would bring to industry, thought Mr. Wilder, was his knowledge of modern short-cuts and efficiencies, but greater than that is a certain understanding and sympathy for the work that had been done before him and the willingness to say quite frankly when the occasion made it necessary, "I don't know." The last quality needed cultivation, thought the speaker.

The substance of Mr. Wilder's remarks will probably be published in a forthcoming issue of The Review.

MAX BORN of Göttingen finished his lectures on January 22 and after visiting several other American universities sails for home next month. About that time, March 22, to be exact, Dr. Th. DeDonder, Professor of Mathematical Physics at the University of Brussels, member of the Royal Academy of Belgium, last year a lecturer on Relativity at the Sorbonne, arrives at Technology to commence a double series of lectures: one on Relativity, another on the Mathematical Theory of Electricity.

Sixty-five scientific papers and six books constitute Dr. DeDonder's permanent contribution to scientific literature. His early papers were twenty-three in number, issued between 1901 and 1913, on the theory of analytical applications of Poincaré's integral invariants. In the latter years of that period he also published six

papers on the fundamentals of geometry and on the motions of continuous media. Since 1913 there have appeared thirty-six papers by him on mathematical physics, and besides four books on relativity he wrote one on thermodynamics and physical chemistry and a treatise on the mathematical theory of electricity.

ARTHUR WHITING, who for a number of years has presented at universities, notably Harvard, Yale and Princeton, concerts which, to quote the official announcement signed by Dean H. P. Talbot, '85, "comprise carefully chosen programs designed to illustrate certain phases and trends of musical thought and development," has embarked upon a series of three at Technology. They are to be given at 8:15 p. m. in Room 10–250. The first, the program of which included Porpora, Beethoven, Schumann and Cesar Franck, was presented on February 16. The other two are in the future, on March 9 and March 30. Says again the announcement, "He will be assisted by several artists who will follow his comments by the playing of illustrative numbers. Not only are the concerts of great educational value, but the performances of such finished artists as Mr. Whiting and his associates constitute in themselves a musical treat. . . . The assisting artists will be Mr. Wolfe Wolfinsohn, Violin, and Mr. Emmeran Stoeber, Violoncello. . . ."

Through the generosity of the Corporation, and the coöperation of Mr. Whiting, the officers and staff of the Institute and their families were invited as well as the students.

The official announcement will be searched in vain for any explicit statement of what Mr. Whiting's own instrument might be. From other knowledge it may safely be reported: the piano.

SOME sixes, quite a few fourteens and elevens, occasional twelves, a seven, odd lots of lowly twos, threes and ones and a sprinkling of nines — but *no tens* — occupied the attention of the Faculty and its committees on February 3 and 4. Be it said that the occasion was incident to the first midyears since 1918 and that the foregoing numbers refer to the code signals of "Faculty Votes in connection with Reports of Standing," apocryphal in identity to undergraduates until exposed several years back by one of *The Tech's* unscrupulous reporters who secured a copy of the "List of Vote Forms" and published it sardonically in a column adjacent to the Schedule of Final Examinations.

Except for the purport of legendary Vote Ten, this publication constituted a distinct addition to the sum total of undergraduate knowledge of the inner workings of the "system" but, like the fruits of much modern research, it was merely of transient value, for shortly thereafter the forms of votes underwent revision. Changing from the three-term system to the semester system last autumn (see The Technology Review, November, 1925, page 5) made imperative another overhauling and the use of traditional Vote Ten in February went by the board. Thus the significance of the italics in the opening sentence above.

Even many ardent supporters of the reversion to the semester system opined that the transition year would be chaotic and stormy, and the die-hard "three-termers" howled calamity, but Technology seems to have survived somehow during the first half of 1925–26. It is certain that this year the instructors knew the capacities of the individuals in their sections better, and presumably dealt with them more justly and adequately than was possible under the pressure of a ten-week term with a series of "finals" jammed into the pre-Christmas rush or the even more hectic between-term interlude in March. Moreover, although the operation was not conducted on a budget just about fifty per cent of the number of students dropped during any one of the last several years of the three-term system were dismissed last month.

BIENNIALLY the convention of the Technology Clubs Associated comes in the spring of the year in some community, usually of the mid-west. This year the choice of the city is Cincinnati, Ohio, and the choice of days April 23 and 24.

For tentative program The Review gives the following from Fred W. Morrill, '07, President of the Cincinnati Club:

Friday, April 23, business session with a discussion of problems of local Technology clubs, such as local scholarships, local publicity for Technology and of the ways in which the Technology Clubs Associated may help the local clubs. All Technology men are invited and all local clubs are urged to have one or more delegates present. Further details of the program of this meeting will be sent later to all the local secretaries.

Saturday, April 24, an interesting excursion is being planned to the Columbia Power Station at Miami Fort, Ohio.

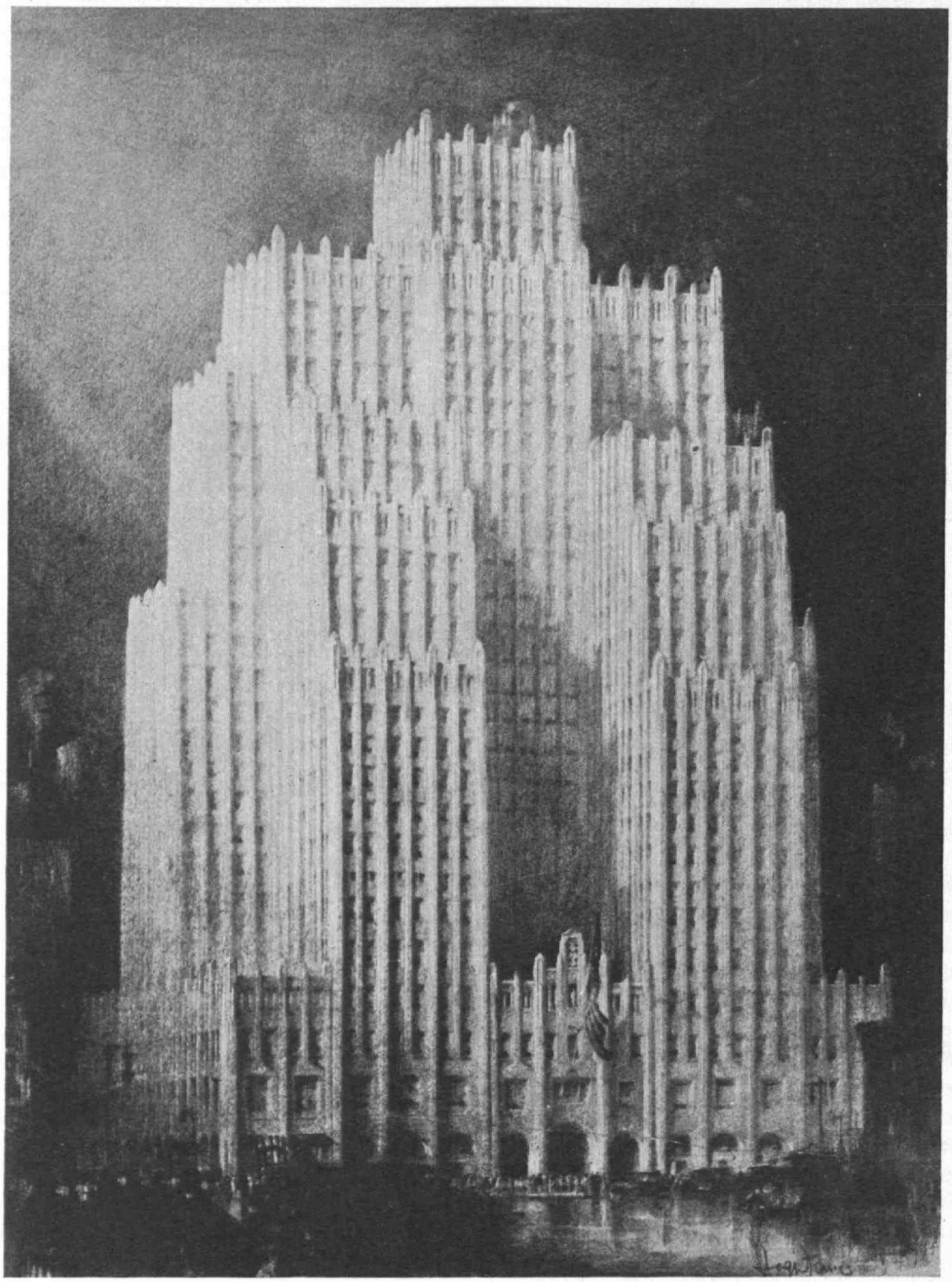
On the evening of this date a dinner will be held at the Hotel Alms, Cincinnati's newest hotel, located on the Dixie Highway and chosen as the Convention headquarters. Short talks and pictures will be presented which will not only be of interest to graduates but also to prospective students and parents of undergraduates. Ladies are invited to all the events of Saturday and a special program will be prepared for their diversion on Friday.

DR. KARL K. DARROW, author of a series of papers which have been appearing in the *Bell System Technical Journal*, begins a series of lectures at Technology on March 5. His subject will be "Contemporary Atomic Theory," and although open to all, the lectures are intended primarily for graduate students and seniors in the Communications Option (Course VI-C) of the Department of Electrical Engineering.

Also the second semester introduced a new subject

to Course VI-C seniors entitled "Sound, Speech and Audition," listed officially as subject 6.61. It embraces lectures, recitations and problems to a catalogue allotment of 135 hours. The two weekly lectures are given by Drs. I. B. Crandell and R. L. Wegel of the Bell System Laboratories. Although this subject will form a part of the regular degree requirement for Course VI-C it is open to all graduate students provided they have had the proper preparation.

After announcing these additions at the meeting of the Faculty on Februray 17, Professor D. C. Jackson outlined in confidence further hopes of his department.



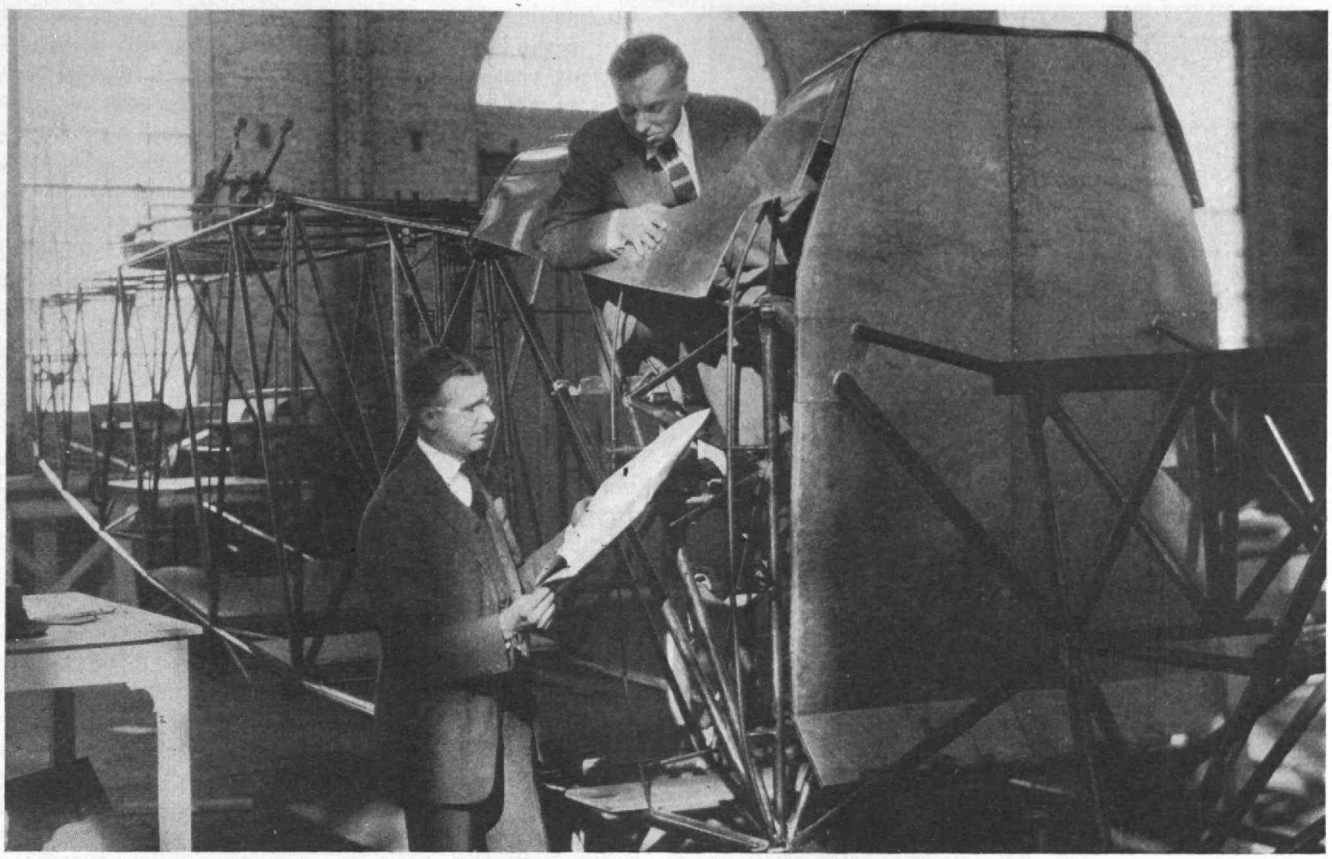
SOUTHWESTERN BELL TELEPHONE COMPANY BUILDING IN ST. LOUIS, MISSOURI

This overpoweringly impressive example of modern set-back skyscraper construction is the work of Mauran, Russell and Crowell, Architects, of which John Lawrence Mauran, '89, term member of the Corporation, is senior partner. From the drawing by Hugh Ferriss, photographed by Palmer Shannon, and here reproduced by courtesy of the Boston Evening Transcript

ETCHINGS, lithographs, wood-cuts, water colors and oils; sketches in charcoal, pencil and pastel to the goodly number of several hundred covered the walls of the Exhibition Room (the old general library) in Rogers Building, and groups of visitors circled about to view them between February 8 and 20. The first general composite showing of the work of the Architectural Department, its Alumni and Staff, since the dedication of the new Technology in 1916, was taking place.

The Exhibition forcefully revealed the talents and the versatility in the Fine Arts of Technology Alumni. Second to none in impressiveness were the etchings of Louis C. Rosenberg, '13, whose work in this medium has in the past five years brought forth a considerable and admirably merited volume of praise. For thoroughgoing excellence the thirty water colors done in Northern Africa by Samuel Marx, '07, could not be bettered. The irrepressibly facile Samuel Chamberlain, '18, contributed etchings, lithographs and water colors in the style which all Review readers know so well. A modest group of lithographs by John Richard Rowe, '19, one of them in two colors, showed his fine mastery of the medium in which he does the bulk of his work. The water colors of Nelson Chase, '17, revealed a mature artist. Leo Goriansky, '25, contributed several crayon portraits of excellence. The marine lithographs of George C. Wales, '89, too widely known and appreciated to need critical remark here, were represented; and the extraordinarily minute and painstaking work of John Taylor Arms, '10, was shown to advantage. Nor were there lesser lights lacking. Crowds came, crowds went.

It was a tribute, was this Exhibition, to Professor W. Felton Brown, stern taskmaster, high idealist, preceptor of freehand drawing of most of the exhibitors during their undergraduate careers. Known to them, and to other erstwhile architectural students, chiefly by his interest in "the prime-ary mass," for



THE *CYCLOPS* IN PROCESS

Thomas H. Huff, '15, (standing) President of the Huff Daland Airplane Company of Bristol, Penna., is here shown discussing details of what is to be the world's largest bomber with C. T. Porter, its chief engineer and designer. The welded tube steel fuselage shown here is the same as that of the Pegasus, *but the* Cyclops *will be sixty per cent larger.* *(See the story on page 256)*

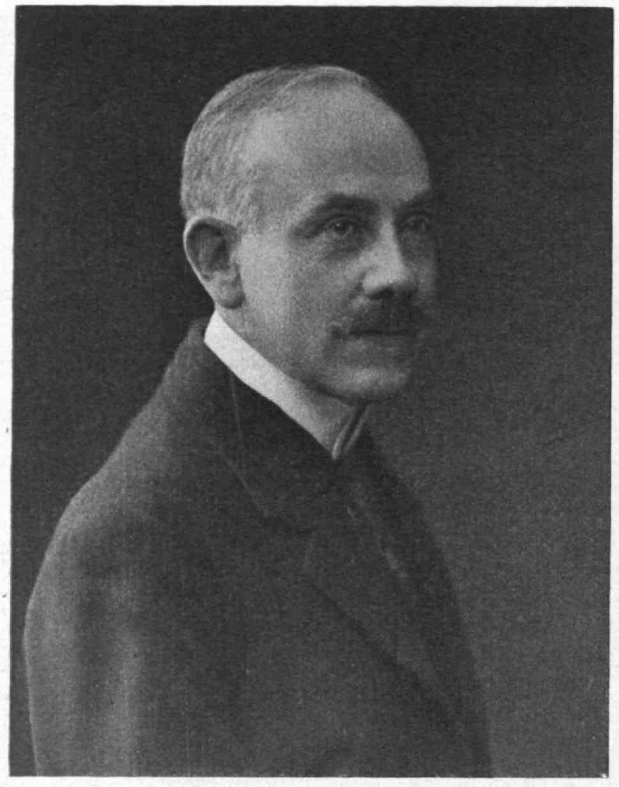
his exhortations to them that they "get those triangles," liked by most, worshipped by a few, respected by all, Professor Brown has labored in instruction these many years, but during them none, except perhaps a select one or two, has ever seen a drawing made by him with all prime-ary mass evident and all triangles got. Proud the student on whose drawing Professor Brown would make a swishing charcoal scratch or two immediately smudged by his active thumb, but diligent inquiry and note-comparing by many former Course IV men failed in revelation beyond this.

But now in the southwest corner of the room hang a half dozen of exquisite water colors, certainly on a parity of excellence with anything in the Exhibition. Better than most of the work, they bear the name of Felton Brown. Thus passes into limbo another unsolved mystery and one less tradition remains to the Department of Architecture. Reticent Professor Brown *can* draw.

DOES the graduate owe his alma mater any specific amount as a return for his education? That is the question that the Class of 1898 discussed at its Twenty-seventh Reunion last June. The Committee then appointed, consisting of C.-E. A. Winslow as chairman, Lester D. Gardner as Secretary, and Roger W. Babson, George Treat and Robert B. Wallace, believes that it has found an answer that will appeal not only to Ninety-eight's comparatively small membership but to all classes and possibly all other educational institutions. Heretofore all appeals for funds for education have been made on the broad grounds of alumni interest or helpfulness to future generations of students. These "drives" have brought large returns but the Class of 1898 hopes that it has found a new and more definite reason for former students to make a contribution to the Institute.

By a deduction of the amount every student pays as tuition from the net cost paid by the Institute for his education, a figure can be secured that gives an amount that was taken from Institute funds for his training. As the costs of operating the Institute may be divided broadly into two classifications, the net average cost may be secured by eliminating what can be classed as building and educational extension expense, and using only the cost of operation which would include faculty and administrative salaries and expense. If from this is deducted the amount the student paid, the result may be considered the amount that some one else contributed to the education of the student. As most men like to feel that they have not diminished the funds of an educational institution, thereby making it less useful to future students, many will wish to replace the amount that was expended on them by Technology over and above their tuition.

To make the plan concrete the Treasurer of the Institute was asked to give the figures as they apply to the Class of 1898. The results of his in-



TH. DE DONDER

Professor of Mathematical Physics at the University of Brussels, Member of the Royal Academy of Belgium, who arrives at Technology on March 22 to commence a double series of lectures, one about Relativity and another on the Mathematical Theory of Electricity. (*See story on page 248*)

vestigation showed that the total underpayment per man was $283.74 and the total class deficit was $78,932.04.

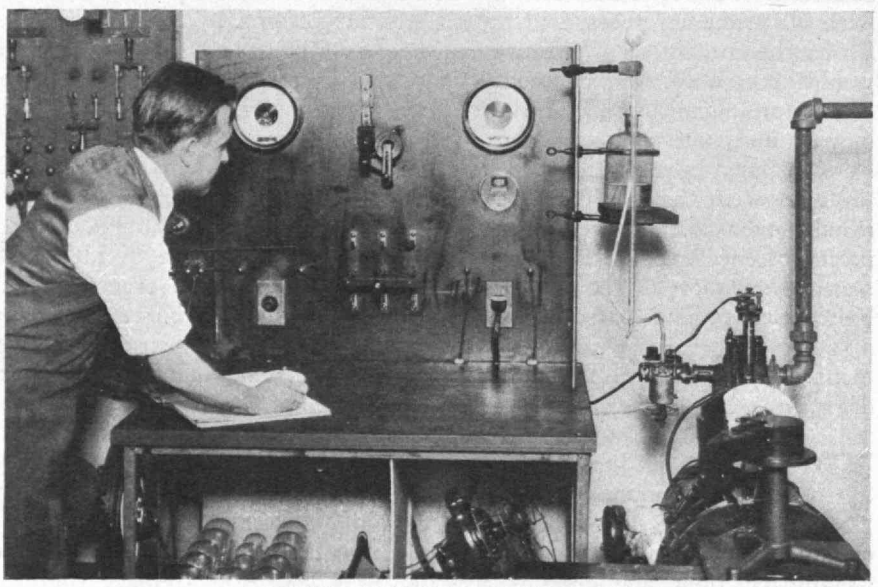
These costs and totals look low but it should be remembered that they include "out-of-pocket expense" only, and that there is no allowance for capital charge. It is difficult to compute the capital charge during Ninety-eight's undergraduate career, but a few years later it was estimated that, outside of land and buildings the cost would be about $1000 a student. The present valuation of the Technology educational plant, including land, building and equipment, is $12,545,000. In other words, each present-day student in addition to the direct outlay has the use of nearly $4,500 capital investment.

The Class of 1898 has voted to create a "refund" of $78,932.04 and has already subscribed $10,000.00 toward this "refund." Payments are to be made over a five-year period.

MANY thought the Educational Endowment Fund of 1920 was a closed book after July 1, 1924, at which time practically all of the final payments became due. However, pledges are still being redeemed and in the last half of 1925 and the first month of the present year Technology was the gainer by the tidy sum of $74,284. Of the original subscription, slightly revised due to deaths and other causes and now standing on the Treasurer's books at $2,885,529.05, 88.3 per cent or $2,547,881.96 had been paid on February 1, 1926. This represents a gain since December 31, 1924, of 3.2 per cent, while during the calendar year of 1924, 8 per cent of the total was paid and during 1923, 4 per cent. More of the $337,647.09 remaining is promised for payment soon.

Twenty-eight of the classes have now paid over 90 per cent of the amounts they subscribed. Five of these: 1869, 1870, 1871, 1872 and 1874 have completely redeemed their pledges. Fifteen fall between 95 and 99 per cent: 1868, 1873, 1875, 1876, 1877, 1878, 1880, 1881, 1882, 1883, 1884, 1885, 1889, 1890 and 1897. Eight more are in the 90–94 per cent group: 1879, 1886, 1891, 1892, 1893, 1894, 1896 and 1901.

FINDINGS of the Surgeon General's Committee, of which C.-E. A. Winslow, '98, Professor in the Yale Medical School, was a member, regarding the possible physiological dangers of the use of lead tetraethyl as a knock suppressor in motor fuels, has revived the controversy regarding the use of this valuable organic compound for the increased efficiency and economy of automobile engines. The finding of General Cumming's board was to the effect that no decisive indication of lead poisoning among chauffeurs or garage workers had been observed where leaded gasoline had been used for three years; hence there was no menace in selling leaded gasoline if four precautions were taken: (1) The mixture of lead tetraethyl with gasoline should be confined to as few central plants as possible. (2) The leaded gasoline should be colored to distinguish it from ordinary gasoline and to warn people from using it for



INVESTIGATING LEAD TETRAETHYL

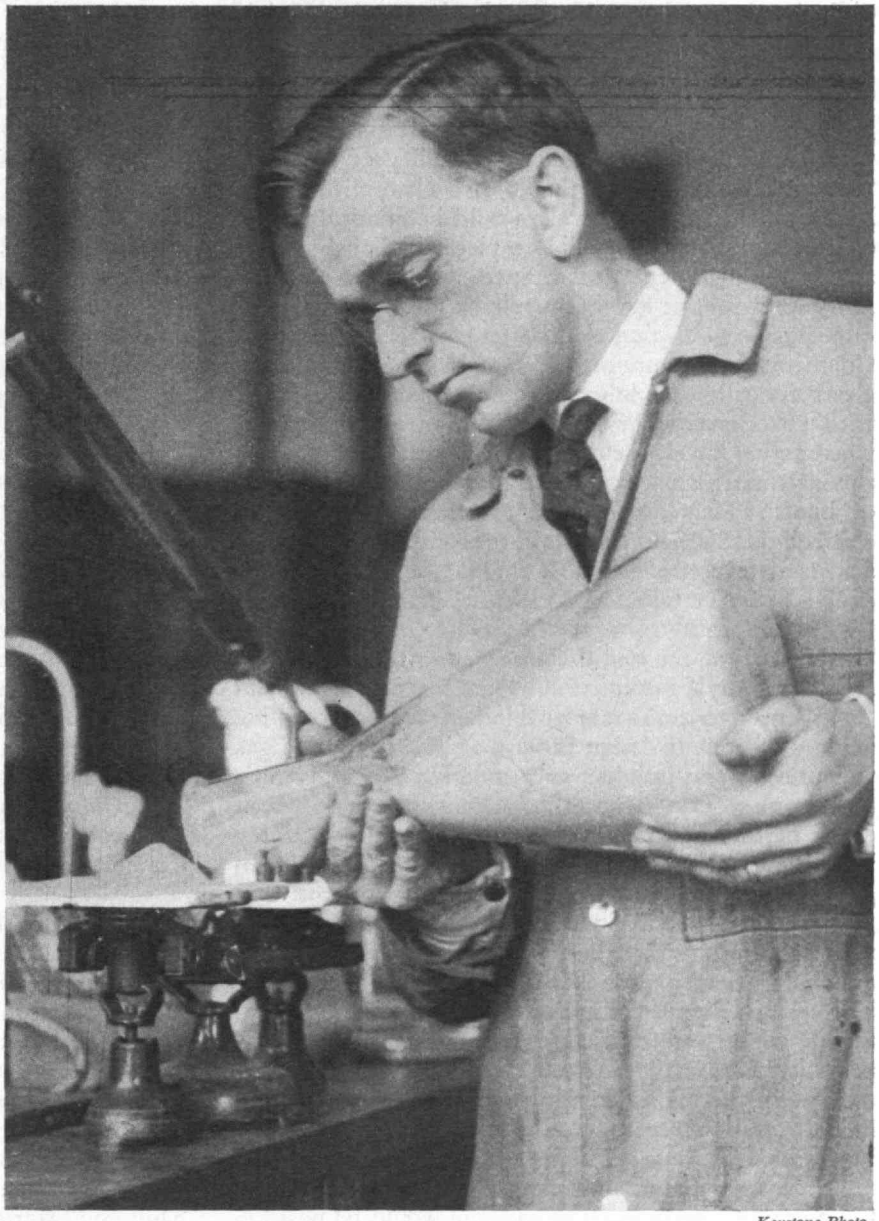
A view showing the mechanism whereby the Institute's Research Laboratory of Applied Chemistry is studying the mechanism by which lead tetraethyl suppresses knocking in gasoline motors. The "one lung" gasoline engine with a window of quartz in its cylinder wall is the piéce de resistance.

cleaning clothes, washing hands, and so on. (3) Signs should be placed at filling stations, warning customers that leaded gasoline is for use only in motor cars. (4) Study of the effects of leaded gasoline should be continued on the chance that chronic degenerative diseases of unobvious character might slowly be setting in.

With these recommendations, Professor W. K. Lewis, '05, Head of the Institute's Department of Chemical Engineering, declared himself in accord. Previous medical testimony to the effect that lead is a poison which eighty-two percent of the population are unable to eliminate was quite wrong, he asserted. Largely through the work of Mr. Thomas Midgley, Vice-President of the Ethyl Gas Corporation (and incidentally, although a graduate in Mechanical Engineering, the recipient of the Nichols Medal for distinction in Chemistry), this has been proved to be incorrect. Through his work, and he should speak with authority, being in practicality the discoverer of the usefulness of lead tetraethyl, every one has this capability, although the individual tolerance for lead, as for other admitted poisons, varies quite widely.

In the opinion of Professor Lewis, the great danger in the use of lead tetraethyl gasoline arises from leaks of the fluid on the floors of garages where evaporation might leave a highly concentrated and extremely dangerous solution of lead tetraethyl. In a gas leak of sufficient magnitude for this, there would be an equal danger in the resulting fire hazard. Gasoline although unleaded, being a volatile and explosive material, is hazardous to handle and the extreme usefulness of leaded gasoline makes it, in his opinion, economically certain that research will go on and that the treated fuel will eventually attain wide use. It is seldom that the use of a scientific discovery has been blocked by legislation because of dangers in its preparation. Nitroglycerine is dangerous, not only because of its explosive capacity, but because of its poisonous action, but nitrogylcerine is now safely manufactured and controlled for appropriate industrial purposes. The parallel, Professor Lewis insists, is quite clearly drawn.

MUCH investigation has recently been progressing to excellent purpose in the Institute's Research Laboratory of Applied Chemistry on the mechanism of lead tetraethyl as a knock-suppressor. The phenomenon of suppression has now for a considerable time been known and many theories as to what goes on within the close confines of the cylinder walls have been advanced, none of them to a completely satisfactory end. At the present time eight rather wide-spread theories are each one insufficient to explain the fact. Excellent progress has recently been made, however, in the laboratory of which Professor R. P. Russell, '22, is in charge. Under the supervision of Professor G. L. Clark, experimental apparatus has been set up which has already given several promising clues. A one-cylinder gasoline engine has been the means. A hole bored in the cylinder wall and plugged by a window of thick quartz has enabled observers to study combustion and detonating flames which actually occur within the cylinder and a revolving shutter makes



Keystone Photo

CAUGHT IN THE ACT

Professor J. W. M. Bunker of the Department of Biology and Public Health, whose announcement in The Review for January of his discovery of a protein substitute for egg whites created such furor, is here shown in laboratory garb with an oversized Erlenmeyer flask of the synthetic product

it possible to take instantaneous photographs of the flames and likewise, by means of that highly utilitarian instrument the spectroscope, to evolve a spectrum of the emitted light. The first discovery was to the effect that lead tetraethyl served to blot out completely the ultra-violet rays emitted by the detonating flame, thus setting up an immediate correlation, as yet not completely understood, between the existence of a knock and the presence of ultra-violet light. In the opinion of Professor Clark the most likely theory of suppression may be summed up in the following technical phraseology:

"The radiation theory: that the gaseous knock suppressors absorb radiations from the initial flame, which otherwise may activate and accelerate reactions by splitting hydrocarbons into a more reactive condition. This theory is without experimental proof, and will be difficult to test. It would seem inadequate to explain inducers."

Actual quantitative results are possible for the measurement of the amount of knock which may be induced under varying conditions. Motorists who drive their cars up hills without the formality of retarding the spark seldom realize that the shock resulting from knock on their cylinder walls would be admirably capable of shattering the engine to pieces if slightly longer sustained. Such actual occurrences are in fact well and sadly known. The detonating shock although severe is of such short duration that its force is seldom realized. Quantitative measure of the amount is best obtainable electrolytically. A plunger at the top of the cylinder with an opposing spring will close an electric circuit when actual knock occurs and the length of time which the circuit remains closed is a measure of the severity of knock. The closed circuit is then used between electrodes for the electrolysis of the solution of sulphuric acid of known strength. The amount of hydrogen thus evolved may be taken as a measure of the knock.

SOME time must still elapse before the use of lead tetraethyl gasoline will become a wide-spread benefit to the automotive industry. In automotive engines of present design the use of lead tetraethyl gas will prevent the peculiar and sometimes actually hazardous phenomenon known as knocking with which every motorist is unhappily familiar. In hilly country it will save, at present, a certain amount of fuel. No great good, however, can come of the use of lead tetraethyl gas, Professor Lewis pointed out, until its manufacture and distribution have progressed to such an extent that its use has become a universal fuel. This universality will then permit the redesign of automobile engines to work at high compressions, now impossible because of the resultant knocking; and it is essentially the higher compression engine to which the industry must resort in its efforts at fuel economy. Professor Lewis stated that for an equal number of motor cars a future saving of twenty-five percent in the nation's consumption of gasoline would be possible as soon as lead treated gasoline is the one standard fuel. All this may be brought about by the addition of one part to 1500 of the peculiar chemical known under the empirical formula of $Pb(C_2H_5)_4$.

INCREASED economic influence of the steam engine and extension of the range of temperature and pressure in steam-power practice some time ago made evident the need for more accurate data on the properties of steam at high temperatures and pressures. With the Harvard Engineering School and the Bureau of Standards, the Institute's Research Laboratory of Physical Chemistry began in June, 1921, a tri-partite investigation of some steam phenomena not completely understood. The American Society of Mechanical Engineers was requested to sponsor the program and the raising of necessary funds was begun under the auspices of a sub-committee.

As originally planned the Harvard Engineering School renewed the Joule-Thomson investigations which had been begun some years earlier; the Bureau of Standards was asked to determine the specific heat capacity of the liquid phase of water at various pressures and temperatures as well as the specific heat capacity of the vapor phase; the Institute began upon the determination of the temperature-pressure-volume relations for both the liquid and the vapor phases to the highest pressures and for the highest temperatures possible.

Now, close to five years after the initiation of the enterprise, it is estimated that two years more may perhaps be needed to complete the Institute's share of the investigation, following which will begin the task of assembling the accumulations of data in final form, the creation of new property tables which the engineer can use with ease and confidence.

Steam at high temperatures and pressures is, chemically, an extremely active substance. The choice of containing vessel, methods of experimental procedure, choice of temperature and pressure measuring apparatus, the calibration of the latter in terms of absolute and reproducible reference standards, all raised difficulties of considerable magnitude, but one by one they yielded to successful solution. Necessarily, many separate investigations were necessary to clear the way of the main enterprise of entangling underbrush.

At the Institute Professor Frederick G. Keyes, Head of the Department of Chemistry directed the investigation of the Research Laboratory, in which Doctors R. S. Taylor and L. B. Smith, '19, took part. George A. Orrok, '89, was Chairman of the general Executive Committee of the Steam Table Fund.

FOR 1926, the John Fritz medal, premier engineering honor, goes to Edward Dean Adams, '69. There is honorable lineage in hydraulic achievements behind this award. J. Waldo Smith, '86, received it in 1918; a year later it was awarded to General George W. Goethals for his work on the Isthmus of Panama; and but a year ago John F. Stevens, former chief engineer of that same inter-ocean canal, was similarly honored. Also the Fritz Medalist of 1910, Alfred Noble, had been in charge of the work of improvement at Sault Ste. Marie, during the period in which the great masonry lock — at that time by far the largest canal lock in the world — was built. He it was who, as a member of the first Nicaraguan Canal Commission and later of the Isthmian Canal Commission, wrote a

letter, clear and terse in argument, which, when read in the House of Representatives, is said to have influenced decisively the action of both Houses in favoring a lock canal at Panama.

Now the Medal this year goes to Mr. Adams, "engineer, financier and scientist, whose vision, courage and industry made possible the birth, at Niagara Falls, of hydro-electric power." Today Niagara distributes power well over 225 miles distant from the point of generation. A new power house, completed a little more than a year ago, contains the world's largest turbines — three gigantic water wheels, each capable of delivering more than 70,000 horsepower. Yet it was only thirty years ago that there were installed, under Mr. Adams' direction, the first 5,000-horsepower water turbines connected to alternating current generators.

Engineers realized in the late Eighties that it should be possible to generate enormous electrical energy from the force running to waste over the Falls. There was, however, a decided difference as to whether direct or alternating current could best be used for industrial purposes and for long distance transmission. Completion of the project depended upon a decision as to which should be employed and Mr. Adams, after spending considerable study and traveling abroad to investigate and consult the best advice available, determined upon alternating current. Contrary opinions were expressed by such men as Edison and Sir William Thomson (later Lord Kelvin) but Mr. Adams stuck by his decision and, with the backing of his directors, went ahead with the power plant. Whether he was right or not may be judged from the fact that ninety-six per cent of the electric current generated in this country today is alternating current. And you may find in the record Lord Kelvin's voluntary admission in later years that he was wrong, and Mr. Adams was right.

Besides his work at Niagara, Mr. Adams, now in his eightieth year, has had a leading part in many large enterprises combining engineering and finance, including the organization and reorganization of various railroads: the West Shore, Central of New Jersey, Western Maryland and the Northern Pacific. Says the official announcement: "He created the American Cotton Oil Company out of innumerable small companies; led in establishing the All-America Cables and had an important share in many other industrial undertakings. . . ."

WITHOUT question the John Fritz Medal is conceded to be the supreme American award for "notable scientific or industrial achievement." It is a gold medal presented for preëminence in applied science, without restriction on account of nationality or sex, as a memorial to John Fritz, the great engineer whose name it bears. The governing bodies of the American Society of Civil Engineers, American Institute of Mining and Metallurgical Engineers, American Society of Mechanical Engineers and the American Institute of Electrical Engineers each appoint four representatives who constitute the board of award.

In 1892 the friends of Mr. Fritz, representing membership in all the engineering societies, tendered him a dinner of celebration in his home city, Bethlehem, Penna. "The affection and devotion of all who were assembled centered in a mock trial after the banquet. The victim was accused of having made the city of Bethlehem a place where grass no longer grew between the stones in the street and a place where the meadow by the river had no longer an opportunity to feed the common or bucolic pig because of the enormous production of pigs of another sort which was a feature of the area. He had, it was alleged, made hollow forgings so that the content of phosphorus might escape through the hollow of the mandril through which they were forged, and there were other high misdemeanors of success with which he was charged."

Ten years later, when his eightieth birthday was approaching there was born the larger concept of a fund (to be subscribed by the persons who would have attended a similar dinner), the income to be used each year in creating a John Fritz Medal. Victor D. Brenner was chosen as the sculptor and the first impression from his cast was presented to Mr. Fritz at a banquet which taxed the capacity of the Waldorf's great ballroom to the limit.

Lord Kelvin, who at first opposed Mr. Adams' advocacy of alternating current (*supra vide*), received the first award in 1905. Then followed presentations to George Westinghouse, Alexander Graham Bell and Thomas Alva Edison. Besides J. Waldo Smith, '86, and Mr. Adams, another Technology man, the late Henry Marion Howe, '71, received the Medal "for his investigations in metallurgy, especially in the metallography of iron and steel." One year before him, in 1916, it was awarded to Elihu Thomson, Life Member of the Corporation, and former Acting President, following the death of Dr. Maclaurin, "for achievements in electrical invention, in electrical engineering and industrial development, and in scientific research."

ROBERT HALLOWELL RICHARDS, '68, LL.D. (Missouri '08), for forty-one years (1873–1914) Head of the Department of Mining and Metallurgy, onetime (1878–83) Secretary of the Faculty; in 1886, President of the American Institute of Mining and Metallurgical Engineers, recipient of many professional honors (see The Technology Review for November, 1922 and February, 1926) was unanimously elected honorary member of the Mining and Metallurgical Society of America by its Council on January 12. Previously a holder of the Gold Medal of this Society, Professor Richards received this latest award for "distinguished services rendered by him during the past fifty years, especially and particularly:

"1. In carrying out at the Massachusetts Institute of Technology, 1872–76, the method of teaching metallurgy by combining with ordinary courses of study, laboratory experimental and research work with machines of commercial or semi-commercial size. This revolutionized the teaching of this and allied subjects;

"2. Research work in Concentration of Ores, 1880–1910;

"3. The compilation and publication of 'Ore Dressing,' 1903–25."

To all of this, modest Professor Richards answered he was "simply overwhelmed by the honor. . . . I

thought I was safely out of sight where nobody would see me or think of me any more. At the time, 1872–76, I did not know I was doing anything that people would look at twice, and now you are telling me that I was shaping new lines of education."

There are but two other honorary members: Professor James F. Kemp (like Dr. Richards a Gold Medalist of the Society) and Professor-Emeritus Henry S. Munroe, both of Columbia University.

"AMERICA has outstripped Germany in the amount manufacturers are spending on research. Supremacy in chemistry has passed from Germany to the United States. No American need go to Germany to study chemistry; he will be better taught at home," so declared Dr. A. D. Little, '85, Life Member of the Corporation, in an address on "The Application of Research to Industry" before the Swarthmore Chapter of Sigma Xi early last month.

To illustrate what research had accomplished he cited that it cost twenty times as much to produce a given amount of light in 1880 as it does today, that a three-fold increase in the output of the tire factories has resulted from the introduction of organic accelerators in vulcanizing, that the discovery of cheaper methods of taking nitrogen from the air has given an opportunity to keep up the fertility of the soil and has lessened the fear that the increase of the world's population soon may outstrip the food supply.

Dr. Little told of the huge sums now being spent by American manufacturers to further research and gave instances. The prime necessity for a research laboratory, he said, is to "find and develop the exceptional man, who is hard to find, simply because he is exceptional. . . . Industrial research employs the same methods as pure research, demands the same skill and the same high intelligence and training. It is, however, and not always to its disadvantage, always under a pressure of the time factor and it must, if it is to be regarded as successful, pay its own way and yield a profit. That it does both, when properly organized and directed, is demonstrated by the generous and growing appropriations made by our larger corporations."

CATHODE rays, peculiar to vacuum tubes beyond the glass walls of which until recently they had never penetrated, have been released in an apparatus perfected by Dr. William D. Coolidge, '96, former member of the Institute staff, and now Assistant Director of the General Electric Laboratories at Schenectady.

The rays can now be produced in the air and their power to kill bacteria and insects has been demonstrated in striking physiological and physical experiments.

In seeking a method to produce cathode rays beyond the walls of glass, Dr. Coolidge, who invented the Coolidge X-ray tube now in common use, developed a tube of unusually high vacuum in the end of which he inserted an aluminum window some three inches in diameter. It is through this aluminum disc, which is very thin, that the cathode rays, consisting of rapidly moving electrons, escape.

With this apparatus, operating under a potential of 250,000 volts and a current of several thousandths of an ampere, it is possible to project the rays a distance of eighteen inches from the tube. The visible effect is a glow of purple tint in the air directly in front of the rays.

Calcite crystals when placed in the path of the rays glowed with an orange light which was visible hours after exposure. Dr. Coolidge also revealed that the crystals may show bluish-white scintillations for as long as a minute after the rays have touched them. Microscopic examination of the spot where the scintillations appeared showed a minute crater with little canals leading into it.

The most striking effects of the rays were produced on living organisms. An exposure of a tenth of a second killed highly resistant bacterial spores, and fruit flies placed in the rays for a fraction of a second, collapsed and died in a few hours.

A circular area on the ear of a rabbit was rayed for one second and after several days a scab formed. Two weeks later it fell off and a thick growth of snow white hair appeared on the area exposed. In another experiment in which the exposure was fifty seconds a round hole appeared in the animal's ear after the spot had healed.

To what extent Dr. Coolidge's new tube can be used as a powerful germicide or insecticide remains to be determined in further experiments. Perhaps it is not too much to hope that from it may come a new weapon in the war on the diseases of mankind.

DETAILS of a new giant bomber and Army transport plane with a power plant of 1200 horse power, weighing about eight and a half tons and carrying a useful load of four and a half, the first of which is now under construction, were recently disclosed by Thomas H. Huff, '15, President of the Huff Daland Airplane Company of Bristol, Penna. This new super-bomber, known as the "*Cyclops*" will be the largest single-engined plane of the bombing type ever constructed in this country, according to Mr. Huff. It will carry 1300 gallons of gasoline and it will be sixty percent larger than the "*Pegasus*," winner of the Detroit *News* Air Transport Trophy during the races at Mitchell Field last year, and reputed to be the fastest single-engined bomber in the world.

Announced Mr. Huff at a special meeting of the American Executives Association in New York City: "It will be powered either with a new airplane motor now being constructed by the Engineering Division of the Army Air Service at McCook Field, Dayton, Ohio, or the 825 horsepower V2500 motor developed by the Packard Company and the Army Air Service Engineers. The new Army power plant has twenty-four cylinders, develops 1200 horse power, and will be fitted with an extra large propeller turned by gear drive. . .

"It will be capable of an approximate speed of 135 miles an hour and will carry fuel sufficient for a twenty-four hour flight. This huge single-bay biplane with its speed and fuel capacity could make a non-stop flight from New York to London."

The new *Cyclops*, Mr. Huff said, would be completed late in the spring.

GRANDSON of Oliver Wendell Holmes, nephew of Chief Justice Holmes, Edward Jackson Holmes, '93, for some time Acting Director has been chosen permanent Director of the Boston Museum of Fine Arts which, in 1925, recorded 496,883 admissions, more than ever before in its history. Always its warm friend and supporter, he has served at times as a member of Museum committees and particularly as chairman of the Visiting Committee to the Chinese and Japanese departments. Recently he gave a Sargent study in oil, a head of Christ, which attracted notable attention during the exhibition of the works of that late master last November and December.

When completed the new wing of the Museum will for the first time be permitted to exhibit the series of American, English and French interiors which friends have so generously given and which the Museum has been able to purchase, remarked Director Holmes in his report as Acting Director issued late in January.

"We are hoping confidently to be able to furnish these rooms in a manner both dignified and appropriate.

"One result of this new construction will be the conversion of the open space between the Egyptian Galleries and the Evans Wing into an enclosed court. I hope that in time it may be possible to raise a fund which will enable us to make this court a thing of beauty with fountains, shrubs and flowers. Our climate will not permit us to rival the *Museo delle Terme* in Rome, but still we can do a great deal, and I am sure that it would be a great relief to visitors to be able to rest their eyes by looking into a garden after the inevitable fatigue of many galleries."

VENAL newspapers do exist but they are so exceptional that the discovery of one only goes to prove the incorruptibility of the press as a whole, according to Morris S. Sherman, editor of the Springfield (Mass.) *Union* on January 20 at the dinner ushering in Volume 46 of *The Tech*. He admitted that many newspapers have shortcomings of sensationalism and commercialism and said there is great need of a revival of courageous journalism.

"If the editorial page is no longer read. . . it is because it is not worth reading. It furnishes no mental pabulum. It is filled up with articles written for filing purposes only. Should Greek be taught in our higher institutions of learning is a favorite topic, but the man in the street cares not a fig. With a yawn he turns to the comic strip as more likely to give him the punch he is looking for. Let the experiment be made of putting some semblance of virility into the editorial page and it will speedily come back into its own."

RALPH ADAMS CRAM, quondam head of the Department of Architecture, architect in charge of the Cathedral of St. John the Divine, conceived and financed as a monument to American religion without regard to creed or class and as an expression of the Twentieth Century creative genius of the Republic, ran afoul of certain American artists late in January. Sculptor August Lukeman, successor to Gutzon Borglum on the Stone Mountain Memorial, and A. C. Friedrichs, President of the Artists' Brush and Color Company, were aroused because when criticised for employing foreign artisans to assist in the work of stone-cutting on the Cathedral, Dr. Cram tartly replied saying that only one such (John Angell, English Sculptor) had been engaged and he only after the work had been offered to two Americans, who were occupied for two or three years to come and could not accept. He continued: "If any American sculptors take any position against the employment of fine artists from other countries in order that they may get the work themselves, I will do everything in my power to stop any such sculptor from getting any work on the Cathedral. . . . Neither the trustees nor I will be dictated to by any artist or any sculptor whatever." Besides Dr. Cram added that, in general, it was difficult to find American sculptors who were proficient at draped figures, their training being chiefly classical, in nudes, of which cathedral architecture makes little use.

Mr. Lukeman called Dr. Cram's statement "arrogant," his lack of knowledge of American sculptors ignorance. Mr. Friedrich likewise imputed arrogance, expressed shock at Mr. Cram's attitude "that the Cathedral . . . is his cathedral and that the American sculptors who aspire to some participation in its decoration had better be careful how they criticise him. . . . What he wants is another Fifteenth Century church, a Twentieth Century Gothic cathedral in harmony with the spirit of the Middle Ages. All the statues are to be draped because that's the way it was done in the year 1000. Orthodoxy is Mr. Cram's doxy."

Defenders were not lacking. Dr. Cram's attitude was swiftly indorsed by Professor A. D. F. Hamlin, '78, of Columbia, chairman of a division of Fine Arts which is raising $150,000 for a Fine Arts Bay in the Cathedral. He said, "The Cathedral is not being built for the benefit of American sculptors or architects but for the cause of religion . . . Dr. Cram is entirely correct in feeling that he must get the best sculptors that he can find."

"SOLOMON must have had a zoning law, for his tall temple was constructed with set-backs in a manner not unlike the tendency of building in 1926," declared Alexander B. Trowbridge in opening the Forty-first Annual Exhibition of the Architectural League of New York on January 28, at which time the annual medal of honor in architecture, the highest prize for architecture outside of that awarded by the American Institute of Architects, was given to John Mead Howells, '90, and Raymond M. Hood, '03. They received it for their design of the structure housing the Chicago *Tribune*, "most beautiful office building in the world." (See The Technology Review, May, 1923.)

Skyscrapers dominated the exhibition, the most extensive and comprehensive the League has ever shown. Country residences, schools, churches, lofts for business and commercial purposes, bridges, landscape projects, interior decoration and furniture design, sculpture, paintings and murals — in all, thousands of individual exhibits are on view. Nor was Technology unrepresented otherwise for the award of the President's Medal to Miss Sarah Cooper Hewitt and, posthumously, to her sister, Miss Eleanor Gurnee Hewett, for their distinguished services to the allied arts, recalled that this

medal was designed but a few years ago by Daniel Chester French, '71. And Charles Keck won the Gold Medal in Sculpture for 1926 for his "Victory" crowning the Montclair (N. J.) War Memorial of which Mr. Hood is architect.

DISORDERLY conduct was charged; specification, an undignified spree; findings, guilty. Greenleaf W. Pickard, '00, was judge and advocate. Accused was the radio wave on trial before the first annual convention of the Institute of Radio Engineers on January 18, but twenty-four hours before the All-Technology Phantom Radio Surprise Dinner. All these years, according to Mr. Pickard, consultant for the Wireless Specialty Apparatus Company, scientists, radio fans and even the announcers have been led to believe that the radio wave, after leaving the broadcaster, traveled sedately on its way "in a perpendicular attitude" until it reached its one or multiple-tubed terminus — the fan's receiving set.

Not so, asserted Mr. Pickard, and the audience-jury headed by E. F. W. Alexanderson, past-President, agreed. Although the wave keeps on a straight and narrow path through the air we must now consider that it employs the traveling time turning somersaults and sometimes actually turns itself upside down and scoots along on its head!

In part his paper summarized: "When extended to higher frequencies, it was found that the wave at any considerable distance from the transmitter was no longer vertical, as it had started out, but, instead, predominantly horizontal.

"Extensive, systematic measurements . . . have shown that direction-finder bearings on long wave stations show greater irregularities of the wave during the hours of darkness. When a wave is radiated from a horizontal loop, it is found in the immediate neighborhood of the antenna that the direction finder gives bearings at right angles to the direction where the station really is."

WINTER in 1926 they said, consulting their astrologies, barometers, philosophers' stones, isothermic lines or rheumatic ankles, would be severe. Snows would come. Great winds would sweep down from the North to cut and chill. The ice caps would move appreciably nearer to the Tropic of Cancer.

Winter itself, beyond one or two moderate cold snaps and a few handfuls of snow, belied these chill predictions until midnight of February 3, whereupon a Georgia twister whirled northward, chilling as it came and dropping a foot of snow on the northeast, Boston not excepted. Early on February 4 the Boston Elevated gave up its feeble ghost and office workers at the Institute and elsewhere, being sent home at four o'clock, arrived there at a mean weighted average hour of about 11:35 p.m. Scarcely had this catastrophe passed and traffic conditions returned moderately to normal — all but the Harvard-Dudley line which knows no normality — when a second blizzard swirled into town and added ten more inches to the depth of detritus. This time every one went home at two o'clock. The Institute dome peeped out modestly from overwhelming snows. The blizzard of 1888, by the combined effects of these two storms was finally outdone. It was the chance of a lifetime to Major Albert S. Smith, Superintendent of Buildings and Power. Nothing in life is so dear to him as the opportunity to rise to an emergency. Donning slicker, sou'wester, and hip boots, he toiled that the Institute might be dug out and once again revealed to the public as the country's foremost technological school. On tractors and snow-plows he rode about the grounds, rediscovering roadways, digging out Department Heads, acting in the rôle of path-breaker. The picture of Gunnar Lasson, Balto, and the Race to Nome was reënacted before our very eyes. Like the captain of a liner in a storm, the Major stayed on the bridge, nor went home, nor slept, nor took sustenance until once again the Institute emerged. The snows are vanquished. It cost, he said, $1500.

FAILURE to feed goldfish and the exhibition of a hippopotamus in a store window caused two recent arrests brought about by the Illinois Humane Society of which John L. Shortall, '87, was reëlected President for the coming year at the annual meeting held in Chicago, February 4. Besides President Shortall the two new Vice-Presidents are Technology men: Solomon Sturges and Richard E. Schmidt, both also of 1887.

The annual report of the Secretary listed thirty-one other prosecutions for cruelty to animals and 3,946 cases of cruelty to children in which the Society acted.

COLLEGE clubs used to be prosperous but like certain mining camps in Colorado their former splendor is of the past. So, in substance, said Thomas C. Desmond, '09, President of The Technology Club of New York, over the radio on January 19. (See page 259.) Next day the New York *Times* asked him why, and in the *Times* of January 21 Mr. Desmond "expanded his views: 'The Harvard Club of New York is a very successful college club. The Yale Club is a reasonably successful one, and I think that the Princeton Club has had more trouble in getting along than either because of the greater difficulties due to the fewer numbers of Princeton graduates. Other smaller college and fraternity clubs in New York have all had a very hard time of it financially, especially since the war and prohibition.'"

While Mr. Desmond must have known whereof he spoke (one New York college club, not the Technology, is said to have profited $40,000 per annum on its bar) a few days later a contemporary of the *Times* credited the Board of Temperance Prohibition and Public Morals with a discovery: "But for prohibition this country would today be in the miserable financial and industrial position of the European countries."

There you have it. If you wish to know what it was that laid waste to Northern France and Belgium, destroyed harvests, bombed cities, entailed huge national debts, ruined credit, upset cabinets and — made easy going for college clubs — you have your answer. It was light wines and beer.

Late last year January was officially designated by persons unknown as National Laugh Month.

FIRST PHANTOM
Dr. Stratton

The Hertzian Waves Dashed High

An impression of the radioactive night of January 19, as seen, heard and eaten in New York City

[The photo-radiograms on this page were transmitted to New York on the night of the dinner by apparatus designed by Captain R. H. Ranger, '11]

SECOND PHANTOM
Mr. Eastman

THE mutations of history are infinite, and when you say that Clio repeats herself, you are voicing a dangerous and derogatory half-truth. Clio is no Dulcinea. She may duplicate, in broad outline, the substance of an earlier event, but if it be a dinner, she takes care to garnish it with a new sauce. It was this capacity for endless variation upon a given theme that the All-Technology Dinner Committee builded in planning for January 19 of this year a radio dinner, for all that less than two years ago it had been done before.

And Clio backed them up. Notwithstanding that her name appeared nowhere in the voluminous committee lists, she did her part and more. Walter Binger, Wallace Brackett, and Matt Brush, Coleman du Pont and George Gilmore all may have done great work for this historic meal, but no one outdid the sweet patient muse of history, the maid of the capacious memory and the infinite resource, she who let Lester Gardner get away with it.

THIRD PHANTOM
Vice-President Dawes

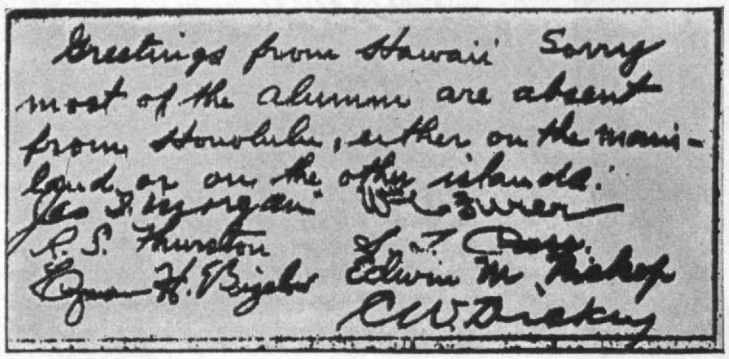
A good many electrons have flowed through the thermionic valves since the night of March 7, 1924. Those were the days when rebroadcasting was new, and the Review's Young Man was younger. Do you remember that night, any of you? It was a great one. The globe had been all but girdled with sound, and 50,000,000 people had heard it said that Tech Was Hell, although it is a not unreasonable assumption that at least 49,000,000 knew it already. Dr. Stratton made a speech, Frank A. Vanderlip made a sensation, Lester Gardner made commitments, and the Class of 1917 made a scene. Next day the newspapers fittingly memorialized the event by giving it the star position on their front pages — for a rebroadcast in those happy days was something more than a twice-told tale. We were famous and proud.

For all that sequels are dangerous it may truthfully be set down that the dinner of 1926 was a worthy successor. Not quite all of the fine frenzy was there, not all of the pioneering zeal nor the flush of new happiness, but for all that, Things Went Well. It is true that the jaded press, surfeited now with broadcastings and rebroadcastings, relegated the news of the meal to the second page, throwing out no more than the small sop of a two column head, but what of that? Twenty-four hours later we took our rightful place in the *Sun*, plus the *World*, *Herald Tribune* and *Times*, with a front page story concerning which thanks are due to Vice-President Dawes, who, for what he had said the evening before, was forced to swallow the microphone.

FOURTH PHANTOM
Mr. Sarnoff

But let us come back to the proper chronology of the evening. Officially, it began at 6:30 p.m. on the Roof Garden

of the Waldorf Astoria. At 6:28 p.m. a worried young man with a straw suit case and an expense account might have been observed dashing down Broadway in a twenty-cents-per-mile and sixty-miles-per-hour taxicab, being then at the junction of 116th Street and Broadway. The Review's Young Man (for it was none other!) was worried because, despite all knowledge and experience, he was afraid that here might be a dinner which would actually start on time. Having predicted two years ago the precise marvels which would entrance the spectators at this very dinner, he had likewise, with a cynical curl of the lip, tossed off the remark that whatever marvelous things might occur, there was one miracle still to be held in reserve, and that was the miracle of a prompt commencement. But for all that he was nervous, nor did the symptoms abate until his conveyance landed him at the marquise of the Waldorf at 6:47 and he discovered that he had still a good fifteen minutes to spare.



HONOLULU SENDS ITS LOVE

A reproduction of this message, sent by radio from Hawaii, was at the place of every phantom diner

For the Roof Garden, one mounted as high as the Waldorf elevators would lift, and then paused to gather breath for the last flight to be made by stairs. In the reception hall of the fourteenth floor was gathered a great mob of Technology men caught by your reporter in the actual deed of Milling About. Unfortunately for the minute observation of this process, it was necessary that he detach himself from the main body, and see about the means to admittance to the dinner itself — if when and as it was to begin. No one on the committee had extended to him the privilege of the press, and although that has the advantage that he can keep his utterance untrammeled, it had, on January 19, the disadvantage that he was forced to probe his wallet for six dollars wherewith to appease the lovely but inexorable young lady who guarded the entrance to the last flight of stairs. The probing was accomplished. Whereupon the young lady took one of the regularly engraved tickets of admission and wrote diagonally in red upon it the significant word "OVERFLOW." It seemed to him that it was rather early in the evening for such a snap diagnosis, but he passed the incident by and began, like some others, to mount the stairs. This process did not meet with complete approval.

"Oh no," said an even half-dozen of Waldorf flunkeys in perfect unison, seizing the reporter by all four points of the compass. "I'm sorry I didn't bring my diploma," said the Review's Young Man in what was supposed to be a chilly and compelling voice. "OVERFLOW," said the flunkeys, this time with a choral precision that Stephen Townsend might have envied; the while, with commendable virtuosity, maintaining a Zybyzko grip on what they had seized. "Look here, my good fellows," said t.R.Y.M. "I—". "OVERFLOW," said the assailants, this time with a threat of the ominous. "But, Gentlemen—" began t.R.Y.M., only to be halted by a blinding flash of lightning and a terrifying thunder clap. Later he discovered that he had been jovially slapped on the back by Robert J. Marlow, '17, who had assured every one that "He's all ri'. He's fren' of mine!" in so convincing a manner that the whole problem was solved then and there. Having been propelled halfway up stairs by Mr. Marlow's token of friendship, your reporter dusted himself off and was able to travel the remainder of the distance under his own steam. And, as a matter of fact, the flunkeys were quite right. The Review's Young Man, by virtue of the hour at which he bought his ticket, belonged with the overflow assembly of some sixty or seventy late comers, who were quartered below decks. But, such is justice, he never even saw them.

TRIO

Seated are Vice-President Dawes and General Harbord. Standing is W. W. Mills, uncle of the General. The photograph was taken a few instants before the Vice-President let loose at the microphone

Once the total of 650 lucky ones who had bought their tickets in seasonable hours were safely seated in the Roof Garden, Oscar got on with his dinner. And when you call it a Phantom Dinner you do Oscar an injustice

which must still rankle. For it was a meal of solid substance. Call it a dinner with phantoms, if you like, with Lester Gardner, '98, as Tinker Bell, but give to Oscar the credit that no amount of static drowned out the Consommé Julienne, and the Broiled Squab Chicken en Casseroles was not marred by fading. It was a fine meal, and it proceeded with occasional outbreaks of old-time jollification, most of which emanated from the tables of the Class of 1917. But what, we would ask, has become of the old-time custom of the Class Cheer? At the dinner of the Association, on January 9 in Boston, not more than three classes were sufficiently intrepid to rise and become vocal, and at the Phantom Affair the same number again was all that could be mustered. On both these occasions the Classes of 1917 and 1922 furnished two-thirds of the performing talent, which ought to prove something, and, as a matter of fact, does.

So came the grapefruit. . . .

Now whatever became of the hours between 7:30 and 9:30 that evening? To the Young Man it seemed that an instant after the first swallow of consommé he set down the demi-tasse and wheeled about in his chair to catch the first words of Lester D. Gardner, '98, who, as Chairman of the Dinner Committee, had made the commitments of the evening. Yet that can scarcely be so. At any rate, you may assume from this that boredom, whatever else, was scarcely rife during the dinner part of the Phantom Dinner. If at any time it was, let us set the fact down to the relentless march of science with its inevitable consequence of more regimentation in the social life of the community. In other words, with a radio program running throughout the evening with speaker following speaker on a thirty second headway, is it any wonder that it was necessary to run affairs in something of the same spirit as the traffic cop at Fifth Avenue and 57th Street? And yet, there are certainly those who missed the opportunity of intermingling in the throng, hunting out Charlie at this table, looking up old Joe Beamish at this, and in general having a strictly social fifteen minutes of it, somewhere between the heterodyne beats. Unhappily this was not possible, any more than it was possible to permit the Alumni to beat their palms together, squeal, shout or in other audible fashion express their emotion at what the Previous Speaker might have said. No. The radio amenities must be preserved, and they were — save for one gentleman who shall hereafter be nameless, but who expressed his personality most charmingly and appropriately by stealing a Waldorf portière of red velvet, stiff with the ingrained dust of a quarter century, draping it about himself, and sitting wrapped in its folds well back in the hall, emitting from time to time shrieks such as no human throat ever before conceived or sustained, and resembling nothing so much as the fire siren at Ithaca, New York. They had a fine carrying power, and no doubt got to San Francisco without difficulty, leaving a trail of blown tubes in their wake.

Yet, despite these occasional rebellions, it was not difficult for the bulk of the Alumni to fall into the hushed and reverent spirit demanded of the occasion. For one thing, despite that we are notably more radio-blasé than two years ago, when the sight of a microphone set the Young Man off into a page of rhapsodies such as he would find it hard to muster now, there is still something impressive about that unobtrusive little abbreviated Pawn Broker's Emblem of brushed brass sitting on its squat pedestal on the speaker's table. For be you never so cynical you must still realize that those two opened orange halves are the Gateway to the Infinite. Why shouldn't you be respectful? Most of our senses are still ghastly frightened at the very idea of it. Taste, touch and smell, we cannot coax within a mile of this entrance to the mystic maze of space. Sight is braver, and trying mightily to overcome its fear. Only sound marches bravely into the mouth of this cavern that is larger than the orbit of the sun. Only sound has the

THE PHANTOM ENTERTAINERS

From left to right are the three Victor musicians who entertained the 20,000 at the Phantom Dinner: Godfrey Ludlow, violinist; Miss Lucy Marsh, soprano; and Nathaniel Shilkret, Director, Victor Salon Orchestra

courage to swell itself to a volume of 15,000 times the combined human voice of the universe — to gorge itself on volts until the bursting point and still be able to step unobtrusively out of the loud speaker again on a command from the twisted dials. Sound is a brave sense, and it will go far.

But let us be careful how we do with it. You there, at the '17 table, quiet down and postpone that story about the Englishman and the Scotsman. The switch is tripped and Honolulu is listening to us! Steady!

What is Honolulu going to hear? Well, first of all it is going to hear Mr. Gardner tell a few technical details of the evening's arrangements and commitments. Let us compose ourselves and listen:

SAID MR. GARDNER

"Good evening, friends out there. It is a pleasure to invite you to enjoy with us the program of the Phantom Radio Dinner, given by the Alumni of the Institute of Technology. The features that you will hear have been provided for your pleasure as well as for the Alumni who are listening in. The speeches will be from men who have something to say and not from speakers who just say something. The entertainment features will be given between the short speeches. The radio experiments will be sent to you as they become available. When you hear the list of organizations coöperating to make this Phantom Dinner a success, you will know what a remarkable program you are to hear.

"First, let me tell you the extent of this unique affair. Dinners are being held in sixty-seven cities of the United States, Cuba, Canada, England and Hawaii, — all listening to the program. The Master of Radio Ceremonies, Mr. David Sarnoff, Vice-President and General Manager of the Radio Corporation of America, will preside here at the Waldorf-Astoria Hotel in New York where seven hundred Alumni are gathered. The other speakers will speak from Boston, Washington and Rochester. They will be the phantoms to us, but you can hear everything that is said here and in all other cities.

"Owing to the fact that seven of the largest radio broadcasting stations in the country are sending this program to you, and as changes have to be made in receiving from different cities, there will be a wait of a minute or so when we go from one city to another. This will permit the many change-overs to be made by the technical experts.

"We hope you will understand that this attempt is experimental. It is inviting you into one of our laboratories. Perhaps some of the tests will not work out, but we have so many that you will only hear the ones that are successful.

"Now for the program. We are greatly indebted to Vice-President Dawes for consenting to speak. He is giving a state dinner to President Coolidge tonight and after the dinner is going to give you one of his characteristic addresses. General Harbord, who is also dining with Vice-President Dawes, will introduce him from Washington.

"You are going to have the opportunity of hearing one of the most interesting men in the United States — Mr. George Eastman of Rochester — a man who has made gifts of princely amounts to many educational and other institutions. He gave Technology over $19,000,000. We hope that we will be worthy of his confidence. He has never spoken over radio or at any dinner so far as I know. We consider it a great privilege, and I know you will, to be able to hear from this generous benefactor of his fellowmen.

"From Cambridge, where Technology is located, you will hear a short address from our President, Dr. Samuel W. Stratton, who for many years was head of the Bureau of Standards and did so much for radio development. Our Glee Club and Tech Show will also entertain you. We hope to receive telegrams from all Tech men listening in. Send your wires to Technology Dinner, Waldorf-Astoria.

"Ten years ago our Alumni chartered a boat to go to the dedication of our new buildings in Cambridge. Then, as now, the radio companies placed at our disposal radio apparatus to experiment with. We tried to receive the first broadcasting of voice from a boat. Remember that was in 1916. We did not get very much even though the distance was only a few miles. The expert radio operator on that boat was the gentleman who has kindly consented to be the Master of Radio Ceremonies tonight, Mr. David Sarnoff. Just think what progress has been made in the last ten years. And much of it has been due to the great ability of Mr. Sarnoff.

"We are indebted to the Victor Phonograph Company for providing some of the greatest musical talent for us. You will hear Miss Lucy Marsh, soprano, and Mr. Royal Dadmun, baritone, Victor recording artists, and the Victor Salon Orchestra, directed by Mr. Nathaniel Shilkret. Later, we are going to take you up Broadway and let you hear Mr. Paul Specht, who has kindly consented to play from the supper club, the Moulin Rouge. Mr. Godfrey Ludlow, the famous Australian violinist, will play from our dinner room.

"And then we hope to have some radio experiments. We have apparatus here to receive pictures and messages by photo-telegraphy. We hope to receive photograms from England, Hawaii and San Francisco. We cannot show you the pictures over radio, but perhaps in ten years our Alumnus, Captain R. H. Ranger, '11, a graduate of M. I. T., will make this possible. You will hear the messages, however. We thank the Radio Corporation for this feature.

"We are greatly indebted to the Society of Authors and Composers for permission to broadcast the compositions of its members.

"Finally, on behalf of the Institute of Technology, and I hope I am also speaking for all who are listening in, I thank the Radio Corporation of America, the General Electric Company and the Westinghouse Electric and Manufacturing Company for placing at our disposal the great radio stations of WBZ in New England, WGY Schenectady, WJZ New York, WRC Washington, KOA Denver, and KGO Oakland. It is also a pleasure to include in our list of stations WHAM, Rochester.

"I now have great pleasure in introducing Mr. David Sarnoff, who will act as Master of Radio Ceremonies."

Cheers for Mr. Sarnoff. By affectionate adoption, at any rate, he is a Technology man. He was the radio operator of the *Bunker Hill*. It was he who, at the Radio Dinner of 1916, fired the *U-ub* heard round the world. Now this evening he appears again in as happy a guise as ever. Perhaps, if some one will just speak to that 1917 table again, we may hear what he says.

SAID MR. SARNOFF

"Gentlemen of the Alumni of the Institute of Technology, banqueting tonight in sixty-seven cities of the United States, and ladies and gentlemen of the radio audience:

"As a phantom speaker at a phantom dinner, attended largely by an invisible audience of more than 20,000 M. I. T. graduates and their friends, I take it that I am expected to make a phantom speech. A new art has come to the rescue of the long-suffering dining public. I, for one, am happy to contribute to the elimination of the verbose toastmaster and his long drawn-out speech. I shall try, therefore, to make my remarks brief and to the point.

"Two years ago the Alumni of this great Institute met at a dinner in New York at which, through a remarkable demonstration of short-wave relay, radio carried the message of Technology spirit to thousands of Alumni throughout the country. It was the first achievement of transcontinental broadcasting without the use of wires as the transmission links between stations. The bond of communion, thus forged through the air, united the Alumni of Technology, whether in banquet hall or home, in town or country, in the mining camp or the metropolis. It was entirely fitting that radio should render this service to the institution that has produced so many men of brilliant achievement in the field of electrical engineering. Some of the most creative minds in radio received their training, their spirit of scientific research, their impetus for accomplishment from Technology.

"Tonight radio has gone a step farther. It has put out strands of communication to sixty-seven cities in the United States, England, Cuba and Hawaii, where Institute graduates are dining and celebrating at the very same hour and at the very same instant. You are sitting, 20,000 strong, at a banquet board more than 2000 miles long, participating in a common program, listening to the same speeches, hearing the same music, responding to the same spirit that has always actuated Technology Alumni.

"Tonight phantom speakers will rise, one by one, in widely separated cities to address the graduates of this great institution. Tonight messages of congratulations will be flashed through the air, and reproduced visually by photo-radiogram device invented by Captain R. H. Ranger, a distinguished graduate of the Institute.

"The photo-radiograms, which will be shown in New York tonight, carry the promise of much greater achievement. From the present generation of electrical scientists, perhaps from the very ranks of Institute graduates dining in more than sixty-seven cities of the Union tonight, may come the key to instantaneous visual communication by radio. When that time does come, as I confidently believe it will, radio television will not only be able to unite you in sound but in sight. You will not only hear but see the speakers at your far-flung dinner.

"We shall now open our program with music rendered by the famous Victor Salon Orchestra."

We did. The Victor Salon orchestra played engagingly and orthophonically and, euphony being laid upon eupepsia, the phantom diners leaned themselves back in solid content as Mr. Sarnoff rose once again, this time with the purpose of introducing Mr. Desmond, who, as will be seen, made momentary allusion to the Phantom Surprise Building some day to be erected for Technology in the 42d Street district. Quiet, please.

SAID MR. DESMOND

"The Technology Club of New York, through myself as its President, extends greetings to all the Technology men and women gathered together in the sixty-seven simultaneous dinners throughout the United States and greetings also to our other great public radio audience in all parts of the country. We expect that a great many thousands of the general public are listening in to this program, realizing full well that the life of every American has been made happier and freer by the great technical developments, including radio, of the past generation, in many of which developments graduates of the Massachusetts Institute of Technology have had a prominent part. And I am proud to think that as my voice reaches now over the radio to the prairies and Rocky Mountains of the West, and the cotton fields of the South, as well as to the industrial regions of New England and the East, it may carry to every listener the message that Technology men, like other technically educated men, have as their prime motive in life, the desire to be of useful service to their fellow citizens.

"May I ask your permission now to say just a few words about some of our present hopes for the extension of Technology influence?

"We are planning the erection of a great three million dollar twenty-five story Technology Building somewhere in the Grand Central district in New York City. This building, if and when erected, will be known as the 'National Technology Center.' New York City has been selected as the proper location for this building because New York is the metropolis of the United States and the city which Technology men from all parts of the United States visit most frequently.

"We hope to have the equity in this building donated to the Institute and the building itself owned and managed by the proper Institute authorities, with the coöperation of the national Alumni Association. The principal idea behind the proposed building is to bring the Institute and its graduates into closer touch with the big business interests of the United States which center in New York. A very important feature of the building will be a greatly enlarged and improved employment and personnel service for the twenty-five thousand Technology Alumni throughout the country. All good technical men are constantly finishing up their work and thereby helping to work themselves out of jobs and an

adequate technical employment service with headquarters in our building in New York, and branches elsewhere, will fill a great need.

"The 'National Technology Center' building should contain offices for the President and Corporation of the Institute and offices for the many Institute professors who constantly come to New York on consulting work. The Alumni Association and the business office of The Technology Review might well have their central offices in our great New York building. And, finally, the building should contain social club rooms, library, bedrooms and restaurant as a New York Harvard Club, or Yale Club. The 'National Technology Center' should differ from existing college club buildings in somewhat the same way that the Institute itself is different from most colleges.

"We hope to locate this building in the New York Grand Central district because that is both a good club district and a good office building district. The extra floors of the twenty-five story building that we do not need at present directly for Technology purposes can be rented as offices for Technology architects and consulting engineers or for business corporations in which Technology men are interested, thus producing a rental income which will help in paying carrying charges for the building.

"All I can do tonight is inform Technology men throughout the country of this new idea for a great New York building. You will hear more of the details in later months through other sources.

"Now, I have the great honor and pleasure of introducing to you Dr. Samuel W. Stratton, the President of the Institute, who, after the radio connections have been transferred, will speak to us from Boston. And I want every Technology man who hears this, wherever he is in the United States, to join me in a regular M. I. T. Cheer, three times three, for Dr. Stratton. It will be the first time in history that such a country-wide college cheer has ever been given. Think of it, thousands of Tech men from sixty-seven dinners all over the country, from New York to San Francisco, from Boston to New Orleans, joining in the same Technology cheer! Now, altogether, everybody, as I start it! Are you ready?"

They were. The Waldorf audience sprang to its feet. In Walker Memorial there was a sudden scraping of chairs. Dayton, Salt Lake City, San Francisco saw loyal Technology Alumni snap to attention. Picture, if you are poetically minded, Institute sons the country over on their feet, poised and alert for the signal. "We are Happy. . . ." In sixty-seven cities. From twenty thousand throats. In perfect unison. Well, perhaps we are overdrawing the picture just a trifle, but at any rate you will grant that it was the loudest college cheer so far on record, and a fitting ovation to Dr. Stratton, who went on the air as soon as the ruffled ether had quieted itself sufficiently to transmit his words.

SAID DR. STRATTON

"I have been asked to tell you something of recent activities at the Institute. I once saw Rome in four hours, but it was easy as compared with telling you anything about the Institute in four minutes. However, it will only be possible to mention the more important lines of progress.

"Provision is being made for precise triangulation work in connection with the summer camp of surveying. It will involve the most precise instruments for measuring angles and levels, the establishment of a fundamental base line and fixed points of reference which can be located accurately year after year. Besides giving an opportunity for the training of men in the most accurate forms of surveying, these measurements ought to detect any relative movements of the earth's surface at that point — a question of fundamental importance in connection with the study of earthquakes.

"A new course in Building Construction has been provided through the generosity of one of the leading construction firms in the country. It is intended to train men in estimating costs of construction, in questions pertaining to building codes, the properties of materials, superintendence of construction and the economic questions involved.

"It is planned to reconstruct the hydraulic laboratory with provisions for experiments on a larger scale in connection with the problems found in modern water power developments, and to construct an experimental river tank for the purpose of studying the laws of sedimentation in rivers, a scientific study of which will probably result in methods whereby the streams are made to control themselves.

"The School of Naval Architecture, the foremost of its kind, is to be provided with a model tank. Plans are being made for such equipment which will provide for studying the fundamental problems in connection with ship construction, especially those in the case of the high speeds now employed in both naval and merchant ships and naval aircraft.

"A new Option has been established in ship operation to which the Departments of Naval Architecture and Economics will both contribute.

"The new field of Automotive Engineering is receiving much attention both as to instruction and investigation concerning internal combustion engines, materials and methods of production.

"A Mining Engineering camp has been established at Dover, N. J., where an actual mine is used for practice in mine surveying.

"Metallurgy is no longer looked upon as including only the processes pertaining to the extraction of metals from their ores, but as including the study of the physical properties of the metals and their alloys.

"The new lines of work in electrical engineering are in connection with the various modes of electrical communication and questions pertaining to long distance transmission.

"The Institute was early in the field of Aëronautics. It has contributed many men and much fundamental data toward the building up of this new and growing branch of technology. For this work a new building is being planned.

"The course in Architecture has been of the first rank since its establishment, and many of its graduates are foremost in the profession. It is attracting splendid men

and new courses in Industrial Art and Town Planning are contemplated.

"The course in Engineering Administration is a popular one under the able leadership of Professor Dewey. It is recognized that such a course based upon sound engineering training is the best preparation for administrative work, especially in connection with industry. Many of the men turned out from this course have risen to high administrative positions.

"Training in English is considered as essential in all departments, and the study of modern languages is encouraged. The number of General Studies, optional and required, is such that every undergraduate is given an opportunity to take up the non-professional studies which are as essential to the culture and general training of the engineer as to any other professional man.

"Within the last decade the importance of the technology of the manufacture and properties of materials has grown to a remarkable extent, so much so that it is exceedingly difficult to supply men trained in the application of physics and chemistry to the production of materials and the study of their properties. The importance of metallurgy in this respect has been referred to, but the great variety of non-metallic materials such as the clay products, cement, glass, lime and many others for building and construction are also important. This new field of technology involves physics and chemistry of the most difficult kind.

"As much of electrical and mechanical engineering consists of the application of physics, chemical engineering has grown out of the application of the fundamental principles of chemistry. This newer branch of engineering at the Institute with its Laboratory of Applied Chemistry and School of Chemical Engineering Practice, is taking an important part in the industrial development of the country.

"Even Biology has come to occupy a very important place in the field of industry. The work in Sanitation so ably established by Professor Sedgwick is being supplemented by work in industrial hygiene, public health administration and the extremely important field of food preservation.

"Progress in all branches of technology is dependent upon the advancements made in the fields of science. The Institute is providing the departments of Physics, Chemistry and Biology with the laboratories, equipment and personnel necessary for instruction and investigation in advanced fields. These departments must lead in the fields of science they represent if the Institute is to maintain the high place it has held in the applications of science.

"The relation between the Institute and the industries was never closer than at present, largely due to the work of the Division of Industrial Coöperation and Research. They come to us for men and scientific data, and with problems to be solved. There is a growing demand in all branches of industry for men trained in the methods of research, in the fields of science.

"Of the 2,813 registered this year, 348 are graduate students. The question is often asked if the Institute is tending toward a place for graduate work only. The answer is 'No.' There is still a large demand for well-trained men in the regular four-year course. Furthermore, it is from this class that the best material is found for graduate courses. Many exceptional students receive the inspiration to go on with advanced work by being near it. The very presence of such work causes the spirit of research to pervade undergraduate instruction, as it should.

"Through the various coöperative courses, the School of Chemical Engineering Practice, and the Summer Camps, the Institute is recognizing the necessity for some contact with practical work and industrial conditions on the part of the student before graduation.

"We recognize the importance of student welfare by careful attention to those matters upon which the health, comfort and recreation of the student body depend. First and most important of the things yet to be done in this respect is the provision of more dormitories. The usefulness of the Walker Memorial Building could be greatly enhanced by providing additional space for recreation and study. An auditorium where the student body can be gathered together for general lectures and other entertainment is one of the urgent needs of the Institute.

"The generous gift of Mr. Eastman, whom we are to hear this evening, will in time provide for much of the new laboratory space and equipment required. Two or three gifts received during the year will add to the endowment, but it should be remembered that the equipment and expense incident to the establishment of the Institute in its new quarters and the recent purchase of over twenty acres of additional land were a heavy drain upon its unrestricted endowment, which these new gifts must replace.

"We in charge at the Institute gratefully acknowledge the assistance that the graduates are giving as technical advisers to the teaching staff and as representatives of the Institute in their respective localities.

"You can do a young man contemplating a college course no greater service than to help him in the selection of the course for which he is best fitted, and the institution where he should go. If they are good men you will, of course, advise their coming to the Institute. By good men is meant those qualified as to character and natural fitness for scientific technical work as well as mental ability. Don't tell them that story about 'all grind and no play' because it is not so now, and I doubt if it ever was in your day. You worked hard, of course, but you owe to it your success in life. Few students are ever hurt by over-work. Some are, by carelessness in living, lack of exercise. Any man of good ability with interest in his work and who is industrious, may enter the Institute with the chances greatly in favor of his success.

"I envy and admire those young men who are ambitious to enter the engineering or scientific professions, and are equipped by nature to do so. There is no field of endeavor more important to the prosperity of the country or the welfare of the people.

"With the best of good wishes for the coming year, I bid you good night."

Music followed, for the relief from the intellectual pressure no doubt felt by some of the 50,000,000 listeners throughout the country who, for all their interest

in science pure and applied were beyond doubt hankering slightly for a bar or two from the Ipana Toothpaste Troubadours or the Blue Ribbon Mayonnaise Symphony Orchestra. And so the Tech Glee Club performed from Cambridge. Following this, Miss Lucy Marsh, Victor artist, sang two songs from the Waldorf, and the 50,000,000 were appeased.

When the last bars had definitely drifted away, there followed a genuine demonstration of that *rara avis*, the Expectant Hush. Switch-overs were accomplished to station WHAM. If you are unlearned in these matters you will probably assume that no one could speak from a station of that name save Vice-President Dawes. And yet, in defiance of all probability, it was not Mr. Dawes at all, for station WHAM is in the quiet city of Rochester, and what came over the air to the listeners in the Waldorf and elsewhere was the dry and restrained voice of George Eastman, benefactor extraordinary to the Institute. For the first time he had consented to body himself forth to its Alumni in a fashion which any of the senses could perceive, and so it is not to be wondered if the assembly hung upon his words.

SAID MR. EASTMAN

"A short time ago a committee of the Alumni of the Institute called upon me and asked me if I would speak on this occasion. I asked them what they wanted me to speak about and they replied 'Anything'. This was a sufficiently wide limit but as I have my own limitations I will confine myself to telling you in a few words why I am a Tech man. As most of you probably know, I am not a graduate of the Institute. I claim, however, to be a graduate in respect to experience with Tech methods and its graduates. My experience with Tech men began in the year 1890 when we were building the first buildings at Kodak Park and when I put on the staff a young mechanical engineer graduate. Those were strenuous days, with many difficulties. It was the beginning of the transition from empirical to scientific methods in the photographic business. This young man's veins were full of red blood, and by the way he had red hair. He made good and soon rose to be manager of the plant, in which position he continued for many years, when he resigned to rest and recuperate, as he put it. Since this beginning the Kodak Company has had a constantly increasing number of Tech graduates. They did not always know as much when they came to us as they thought they knew, but with their trained minds they soon remedied that. In the great majority of cases they made good. One thing that I have observed in Tech graduates, and also in men with the same kind of schooling from other institutions, is the high grade of ethics which they carry. If I were talking to a group of undergraduates I would enlarge upon this point of ethics and its importance. Employers as a rule, whatever the quality of their own is, have a keen appreciation of sound ethics in others. However brilliant a man's mind may be, if his ethics are hazy it will greatly handicap him in his progress through life.

"To return to my subject, however, the chief reason why I am a Tech man is because I think that the Massachusetts Institute of Technology is very near the foundation of most of the important things in life, not only material things, but indirectly spiritual things as well. First is its connection with research in pure science, in which field the Institute is doing an amount of work which is increasing year by year. Next comes applied science, in the promotion of which the Institute is one of the chief factors in this country. Upon applied science depends largely the future development of all those arts and sciences which lead to the rounding out of human life; so in the last analysis the work of the Institute has to do with the science of living, which has so much to do with making the world a worth while place to live in. So I repeat these are the reasons why I am a Tech man.

"The Institute has a glorious past. Its present efforts are keeping it in the first rank. What its future may be, I say may be, dazzles imagination. George Eastman signing off — good night."

There was, probably, not a man of the 20,000 who theoretically heard him who did not make an inner resolve that Mr. Eastman's tentative "may-be" must shift to "will-be." Thus did Mr. Eastman make his voice so shine that men might see his good works.

Then more music. Royal Dadmun, first of all, singing from the Waldorf songs which ranged from the semi-classical to Irving Berlin's "Remember," which, since most of the evening's telegrams of appreciation came by Western Union and not by Postal Telegraph was, after all, a perfectly safe thing to do. A perfect flood of telegrams, impounded by Mr. Gardner throughout the evening, were released over the air by him, following Mr. Dadmun, and served impressively to indicate the breadth of interest that radio fans were taking in the program. But "a train dispatcher list . . . one displeasing feature of the program" said "Pioneer" in the radio column of the *Herald Tribune* the next morning. There's no pleasing every one, Mr. Gardner.

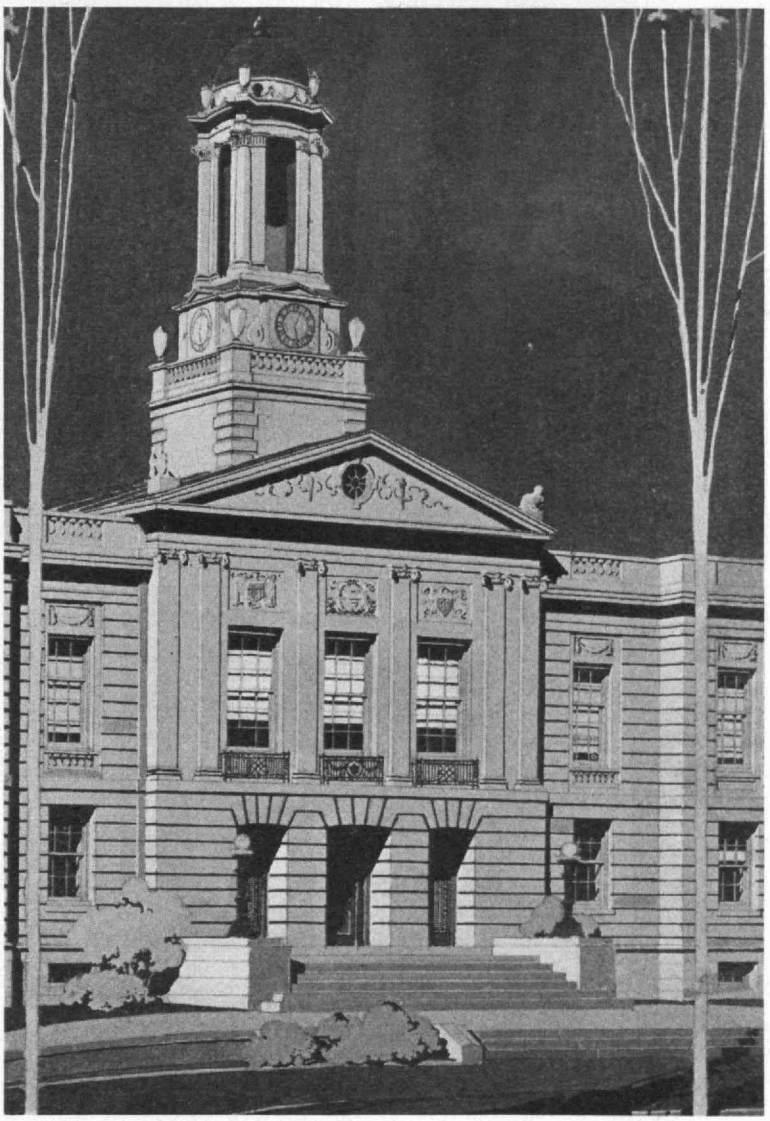
Then the Victor salon orchestra again, still under the able baton of Nathaniel Shilkret.

Whereupon the focus of attention shifted southward, and after a moment of delay station WRC came into line. For a few moments, General James G. Harbord, President of the Radio Corporation of America, held to the air which he has been instrumental in making so populous with the mysterious traffickings of electrons, but his principal task was the introduction of Charles G. Dawes, Vice-President of the United States, scheduled to speak eight minutes' worth on any topic that suited the vice-presidential whim at 11:03 p. m. It so happened that at that moment the topic which most appealed to Mr. Dawes was, singularly enough, the Reformation of the Senate Rules, and being pre-warmed to his subject, he began under a full head of steam. There was, we grant you, some mention of the World Court, but the speaker's heart did not seem to be in it. But oh the Senate Rules, the Senate Rules. Only the day before the presiding officer had been forced to sit, silent and impotent, while some senator read into the record an article from a magazine, and how, asked the radio orator, was the country to transact its business so long as such a thing was possible? Candor compels the statement that the Vice-President has not the ideal radio voice or temperament. He did not swear, but he did blast, and did pound the table to the almost complete collapse of the

microphone. His speech, one must remark, might have been more easily audible in New York on the echo than on a carrier wave. By its conclusion the loud speakers smoked. So did Senator Reed of Missouri, next day, and by your leave, we shall add nothing to his comment.

Music came again to soothe such breasts as were troubled. This time Godfrey Ludlow, violinist, to the accompaniment of Keith McLeod, played two selections, the switch-overs having once again brought the nervous center back to New York. Then a rapid scampering back and forth between the Metropolis and Boston, for the completion of the program which was destined from now on, with one last violent exception to be strictly musical. Thus it was that we heard three selections from members of the Tech Show cast, heard Leo Reisman and his soft, palpitating and voluptuous jazzists from the Hotel Brunswick, heard Paul Specht, and his Moulin Rouge Syncopaters, who did the exspechted. Then for climax, came the feature titled "Putting a great daily to bed." A microphone, hung in the press room of the New York *Times*, was supposed to show the 20,000 how it sounded to print all the news that's fit to. The Review's Young Man was forced to the conclusion that putting a great daily to bed is a job productive of sound about as melodious as putting a reluctant three-year-old in the same place. For all of him the title might have been "Rush Hour at 96th Street," "A Quiet Hour on the Curb Market" or Prokovieff's Scythian Suite, as interpreted by Mr. Koussevitsky. Undoubtedly, however, the paper went to press, for it came out next morning with the story of the Phantom Dinner on page two.

It was an end to a full evening. The Review's Young Man hastening to Grand Central for a return to Boston, envied the nimble electron, who could make the switch-over without the necessity of climbing into an upper berth and there removing dinner clothes. For the next Phantom Dinner he would like to be propelled out of a thermionic tube, and for all you know, he may be. Perhaps it will happen even earlier — when Lester Gardner, '98, reads this story.



WALTHAM CITY HALL

The public building now under construction is the work of that all-Technology architectural firm of Kilham, Hopkins and Greeley

Leonard Metcalf: 1870-1926

A biographical sketch of one of the Institute's most illustrious Alumni, who died on January 29

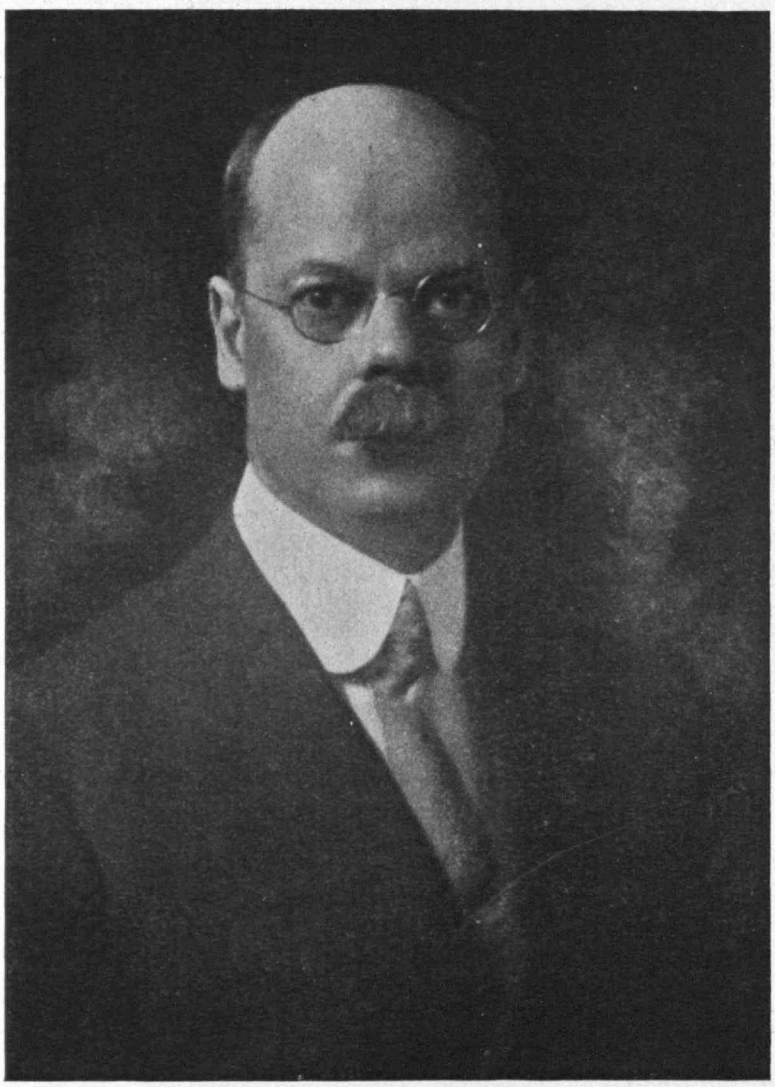
By CHARLES W. SHERMAN, '90
Of Metcalf and Eddy

LEONARD METCALF, '92, a Term Member of the Corporation of the Institute, died at his home in Concord, Mass., on January 29, 1926. In his passing Technology has lost one of its most loyal and useful Alumni, one who inspired not only the respect, but the affection of all who came into close relations with him, and who, in the midst of a busy life, was never too busy to serve the Institute and to advise and assist students and younger engineers.

In addition to serving as President of the Alumni Association and on visiting committees of the Corporation, he had rendered most valuable service as a member of the Committee of Alumni who selected the site and aided in the development of the summer surveying camp near East Machias.

His ability and character were recognized by the fact, heretofore known to very few, that he had been asked by the Executive Committee of the Corporation to accept the Presidency of the Institute. This was during the period following the death of Dr. Maclaurin and before the discovery of Dr. Stratton. Mr. Metcalf declined to consider the offer, since his preference was for professional practice, and he felt that he owed a duty to his clients and to his partners which he ought not to lay down; but the Committee accepted his decision with great reluctance.

Leonard Metcalf was born in Galveston, Texas, on August 26, 1870, the son of Joseph Houghton and Emma Augusta (Leonard) Metcalf. His home for the greater part of his life was in Concord, Mass. He attended the Concord High School and was graduated from the Institute in 1892 in the course in Civil Engineering. He was a member of the Delta Kappa Epsilon fraternity.



LEONARD METCALF, '92
Former President of the Alumni Association and a Term Member of the Corporation whose death occurred in January

For three years after graduation he was employed by Wheeler and Parks of Boston, civil engineers and operators of water companies. He then served for two years as Professor of Mathematics and Engineering at Massachusetts Agricultural College, and in 1897 he began practice in his own name, as a civil engineer in Boston. In 1907 he formed a partnership with Harrison P. Eddy under the firm name of Metcalf & Eddy, specializing in hydraulic and sanitary engineering.

Mr. Metcalf's outstanding professional achievements were largely in the field of municipal water works. For more than thirty years he was actively engaged in the design and construction of water supply plants including reservoirs, wells, pumping stations, filters and distribution systems. For years he served as manager of public service corporations, including water and electric lighting plants. He took a keen interest in the financial problems of water works properties and was nearly constantly engaged in advising owners relative to betterment of economic conditions and the adoption of sound policies which would result in adequate service to consumers and reasonable compensation for such service.

The most important of his accomplishments were in the field of valuation and rate-making for public utilities. He was prominent among a small group of engineers whose clear thinking and intellectual honesty resulted in the present conceptions of the magnitude of going value and other intangible elements entering into the value of an estab-

lished public utility system; of the importance and logical estimation of the amount of depreciation suffered by such works, and the necessity for making provision for it in the rate base; and of the extreme significance, particularly in recent years, of the study of price trends and index numbers in the determination of fair values for public utilities.

As a result of the eminence he had achieved in this line of work he was frequently called upon to advise or to testify in cases relating to water works valuation and water rate making. Among the most important of these were the cases of the water works at San Francisco, Denver, Des Moines, Indianapolis, Paterson and Utica. The water rate case of the Pennsylvania Water Company of Wilkinsburg, Pa., while not of so great magnitude as some of the others, deserves particular notice because it resulted in a study of the basis of fixing rates for fire hydrant service, which has generally been accepted as the most significant and authoritative discussion of the matter which has ever been presented.

That Mr. Metcalf met these problems in an unbiased manner and not as the special advocate of the side which employed him is evidenced in the findings of Honorable H. M. Wright, Master in the Spring Valley case, who said: "His testimony shows not only an immense amount of labor in assembling materials for a judgment of value, but a very evident desire on the part of the witness to exercise that judgment fairly and conservatively. This must be acknowledged whether we agreed with his final opinion or not."

A letter from Honorable Charles E. Gurney, Chairman of the Maine Public Utilities Commission, to one of Mr. Metcalf's partners may be quoted in this connection. He said: "Among the emoluments of my present position, more attractive to me than the financial return, are some of the men I have met, whose lives and achievements inspired my admiration and an endeavor to do my best work each day. None of them has impressed me more deeply for qualities of character, a manifest integrity and a steadying earnestness of purpose than Mr. Leonard Metcalf of your firm. I always felt, as he testified before this Commission, that there was no danger of his stultifying himself by making any statement in which he himself did not place implicit confidence. I felt that he would not exaggerate wantonly and that I could depend upon what he told me. I do not mean by this that I closed my own mind and accepted his word as infallible, but I do mean I felt that so far as human error honestly made might be excluded, Mr. Metcalf's word might be accepted and that he would not sell his opinion to the highest bidder."

His wide experience and ripe judgment in matters of this kind led to his frequent employment as adviser to capitalists contemplating the purchase of water companies.

His writings on these and related subjects, published mainly in the Journals of the American and New England Water Works Association and the Transactions of the American Society of Civil Engineers and in the recently issued Manual of American Water Works Practice, bear witness to the logic and accuracy of his conclusions, and of his desire to make such material available to the profession rather than to hold it for his personal use.

Among the clients whom he has served there may be mentioned the original Boston Finance Commission (1907–1908); Dayton, Ohio; Denver Union Water Company; Des Moines Water Company; East Chicago and Indiana Harbor Water Company; East Providence Water Company; Fitchburg, Mass.; Gloversville, N. Y.; Indianapolis Water Company; Kingston, N. Y.; Macon, Ga.; Nashville, Tenn.; Passaic Consolidated Water Company; Pawtucket, R. I.; Peoria Water Company; Plattsburg, N. Y.; Portland District, Maine; Kennebec Water District, Maine; Rumford and Mexico Water District, Maine; Dover-Foxcroft Water District, Maine; San Antonio Water Supply Company; Spring Valley Water Company (San Francisco); Spring Brook Water Supply Company (Wilkes Barre); Consolidated Water Company of Utica; United Fruit Company; Penobscot County Water Company, Maine; Tampa Water Company; Woburn, Mass.; Syracuse, N. Y.; San Jose, Costa Rica; and many other places and corporations. During 1925 he was consulting engineer to the Metropolitan Water Supply Investigating Commission of Massachusetts.

For several years he served the Town of Concord as a trustee of the public library, and since 1915 as a member of the Board of Water and Sewer Commissioners, of which he was chairman from 1917.

Mr. Metcalf's interest in his Alma Mater was constant. He had been President of the Alumni Association, and was a member of the Corporation of the Institute at the time of his death.

When war was declared in 1917, Mr. Metcalf was appointed as member of the sub-committee on Emergency Construction of Buildings and Engineering Structures, under the National Council of Defense — the committee which assisted General Littell in establishing the Construction Division, and aided in selecting personnel, making out forms of contract, providing lists of contractors, selecting cantonment sites, and awarding contracts for the cantonments erected during the summer of 1917 for the new National Army. The members of this committee were civilians. They were men who had made their mark in civil life, and whose decisions upon certain matters could not be questioned. They determined policies, and gave the military authorities the necessary moral backing to carry these policies through. This was necessary, for in the case of the cantonments and many other projects work had to be started before it was possible to obtain the necessary funds. It was of the greatest help for the military authorities to have the backing of a committee of well-known civilian experts which would insure them against criticism or subsequent failure of appropriations.

His services to the profession of civil engineering have been noteworthy. He held membership in many professional societies, in most of which he had served on various committees, and as an officer. He was a member of the American Society of Civil Engineers, of which he had been Director and Vice-President; the American Society of Mechanical Engineers; the Boston

Society of Civil Engineers, of which he was President in 1919; the American Water Works Association, President 1916–17; an Honorary Member of the New England Water Works Association and its President in 1915; and a member of the Boston Chamber of Commerce. He took the initiative and was instrumental with others in the bringing together of the professional engineering societies of this vicinity into The Affiliated Technical Societies of Boston, immediately following the war, feeling that this would lighten their financial burdens and make more effective the work of the engineer.

He was proud of the organization (Metcalf & Eddy) which he had helped to build up, and of its contributions to the technical field in which he had worked; particularly of its three volume treatise on "American Sewerage Practice" and of the one-volume abridged edition, "Sewerage and Sewage Disposal", which is now used in upwards of sixty universities and colleges in this country. He liked to think that the acquaintanceship and standing of the firm had made possible these works, to the material for which many engineers had contributed.

Among the most important of the papers contributed by Mr. Metcalf to technical societies are the following:

For the American Society of Civil Engineers: "The Antecedents of the Septic Tank"; "The Groined Arch as a Covering for Reservoirs and Sand Filters"; "Water Works Valuation and Fair Rates in the Light of the Maine Supreme Court Decision"; "The Going Value of Water Works" (with John W. Alvord); "Final Report of the Special Committee to Formulate Principles and Methods for the Valuation of Railroad Property and Other Public Utilities" (Mr. Metcalf was secretary of the committee).

For the American Water Works Association: parts of several chapters in the "Manual of American Water Works Practice," 1925; "Some Fundamental Considerations in the Determination of a Reasonable Return for Public Fire Hydrant Service" (with Kuichling and Hawley); "Some Practical Checks on Water Works Depreciation Estimates"; "Experiences with Ice in Standpipes"; "The War Burdens of Water Works"; "The Improved Financial Condition of Water Works."

For the New England Water Works Association: "Depreciation in Water Works"; "Echo Lake Dam at Milford"; "Wrought Iron Cement-Lined Pipe"; "Data on Awards for Water and Water Power Diversion" (report of a committee of which Mr. Metcalf was secretary).

He was a member of the Union Club of Boston, the Engineers' Clubs of Boston and New York, the University Club of Chicago and the Social Circle of Concord.

Perhaps the most marked and the underlying characteristic of Leonard Metcalf was his loyalty and devotion to his family — his mother throughout her life, his two sisters and more distant relatives. His watchful care of them was ceaseless.

His keen interest, also, in the welfare of others, particularly of his professional associates, members of his staff and students whom he chanced to know, his sympathy and generosity, were recognized by his intimate acquaintances as typical characteristics.

His honesty of thought contributed to the absolute fairness of his decisions and actions. One of his precepts was "face the facts." He strove to discover them and thereafter he builded his structure upon them. This characteristic was especially marked during the last year of his life when, faced by certain death predicted with indisputable accuracy, he continued his professional practice with all the enthusiasm and vigor of former times until actually laid low by the fatal malady. Even after becoming confined to his bed Mr. Metcalf wrote two valuable papers on rather involved subjects, for the benefit of the profession.

He believed in the practice of engineering as a profession and not as a business. His standard of professional ethics was high and, as would be expected of one of such keen sensibility, his practice accorded with this standard. He abhorred gossip and would rarely repeat even to his closest friends a rumor in the least derogatory to another engineer.

He counselled thoroughness, accuracy, refinement of detail and perfection in workmanship. Although he was possessed of keen business instinct this was never allowed to dominate. On the contrary, Mr. Metcalf insisted that the interests of his clients be protected even if this involved material sacrifice to himself.

Mr. Metcalf enjoyed art, travel and literature. He cultivated refined English of which he became a master. His natural clearness of vision was supplemented and accentuated by an unusual clarity of diction. He was fond of nature and spent much time in the mountains of California and in the Colorado Rockies where he had his summer home.

His brief early experience as a teacher developed and fixed certain natural tendencies. In consequence of this he never let pass an opportunity to point a lesson from fact, for the benefit of the younger, less experienced engineers. He was deeply interested in educational matters and was very fond and proud of the achievements of the Institute.

His sympathetic interest, enthusaism and optimism, tempered by sound judgment, were a source of inspiration to all who came in contact with him, particularly the younger engineers. He was an indomitable worker. His keen intellect, quickness of thought and action, and his will to work resulted in that effective productiveness which will distinguish his memory.

Visiting Committee Reports: III. Departments of Modern Languages and English

Report of the Corporation Visiting Committee on the Departments, published by arrangement with the Corporation Executive Committee

YOUR Committee on the Departments of Modern Languages and English has before it, at this time, two quite different problems: (1) that of assisting in the task of making the undergraduate more competent in the use of spoken and written English and more able to utilize the lessons of literature and of history; and (2) that of reminding the Faculty of the increasing importance to Technology graduates, as the world grows more compact, of a good working knowledge of French, German, Spanish, and Italian.

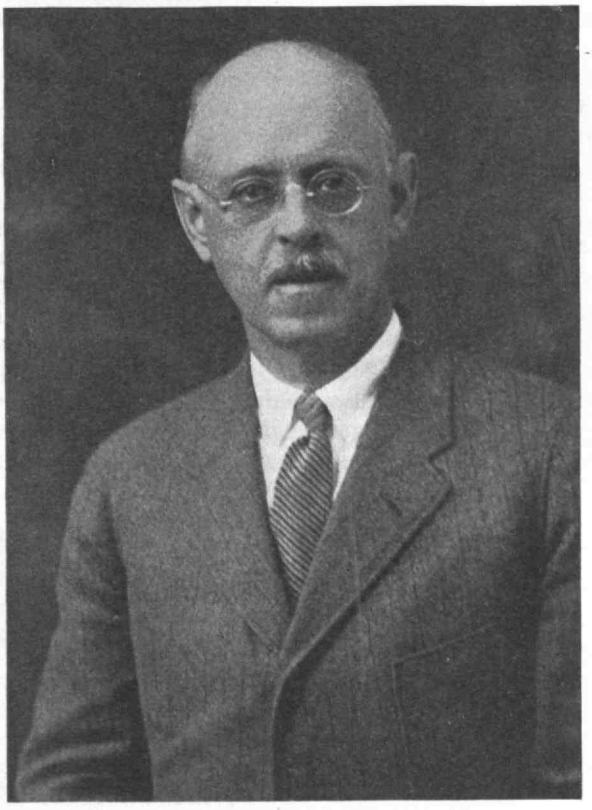
The Department of English and History is more fortunately situated, just now, than is the department of modern languages other than English. This is so because, first, the preparatory schools are doing their work in English and history — always superior to that in French and German — much better than they did it even ten years ago; and, because, the attitude of the other departments towards the subjects of English and history is more friendly, from the educational standpoint, than towards those of the other department. With all non-technical studies such backing is essential, since, as this Committee has more than once pointed out, the average undergraduate is not likely to appreciate, until too late, the professional and social importance of the languages, of literature, and of history, unless each one of his teachers, not only possesses such an appreciation, but gives it practical effect. Happily, the other departments are developing this coöperative attitude towards the department of English and history, and the interest of the Faculty as a whole in those teaching projects which tend to broaden the outlook of the students and to give them greater power in writing and speaking is undoubtedly growing.

It is not necessary to burden the Corporation with specific details. They may feel assured, however, that, because of its personnel, of its range of teaching opportunity, and especially because of a growing sympathy towards its work, the department of English and history is each year able to contribute more fully to the effectiveness of the education furnished by the Institute.

In this Committee's report submitted in 1924, seven points were given special emphasis. In six of those, namely: greater use of convocations, more general training in public speaking, fuller coöperation on the part of the teaching staff, better opportunities for students handicapped by lack of "background", the creation of a wider interest in "culture" studies, and a broadening of the outlook in both English and history, gratifying progress is being made. At some later date the Committee will report in detail upon these several points.

JAMES P. MUNROE, '82

Chairman of the Corporation Visiting Committee on the Departments of Modern Languages and English



HENRY G. PEARSON

Head of the Department of English and History, whose work here calls forth Mr. Munroe's warm praise

The situation regarding the fourth point, that of facilitating the student's acquaintance with at least one foreign language, is not so satisfactory. This leads to the second problem with which this Committee finds itself confronted.

In the earliest days of the Institute, a real working knowledge of both French and German was regarded as essential, and a succession of eminent teachers, beginning with Professor Bôcher, made every endeavor to give the undergraduates a good acquaintance with both languages. This task was difficult then, as it is now, because of the widely divergent and, in many cases, quite inadequate training in French and German provided by the secondary schools.

With the increasing complexity of the engineering professions and with the ever wider technical demands upon those who undertake them, the pressure of the purely professional studies has become steadily greater. The four-year period leading to a degree which, in the simpler days of 1870, seemed sufficient, has become more and more crowded with technical courses and half-courses each deemed indispensible to a graduate well-trained in industrial science. To meet these newer demands, the work in French and German has been crowded out from a number of the departments, reliance now being placed, in those courses, upon the very uncertain training in foreign languages given by the secondary schools in preparing their pupils for admission to the Institute. Those entrance requirements call for two years of French and two years of German or for a more extended training in only one of the two languages.

It is possible, therefore, for a young man to graduate from many of the Institute's courses with no knowledge whatever of French (or of German) and, at best, with only a smattering of both languages. What they know has been taught to them, as a rule, by Americans who themselves were inadequately trained in those foreign tongues and who, generally speaking, had not even met a citizen of France or Germany

Even more serious is the fact that men can, and do, go out from the Institute with the degree of Master or of Doctor, but knowing only French or only German. If they nominally know both, they possess merely the superficial knowledge which they acquired, in the irresponsible days of adolescence, under the defective conditions that prevail, so far as concerns modern languages, in the average public school.

Your Committee is strongly of the opinion that this latter defect should be remedied as soon as possible. It believes that no person should be given a higher degree from the Institute who cannot read, with reasonable ease, technical journals issued both in France and in Germany. A man cannot be said to be a competent engineer unless he can keep abreast of the latest engineering thought and experience, much of which is recorded in foreign languages. To assert that everything of importance will be translated into English is not true. Many important papers essential to the alert engineer are never translated and probably a majority of those eventually rendered into English are translated too long after their original publication to be of any use. The professional man who hopes to lead must be cognizant of new ideas as soon as they are suggested.

In the Committee's view, the arguments applied to those seeking the Master's or the Doctor's degree of the Institute, bear with almost equal force upon those aiming to be only Bachelors. The members cannot persuade themselves that a man who purposes entering an engineering profession can get the most out of that profession unless he is able to keep abreast of substantially the whole range of its important literature. Moreover, with the rapidly increasing intercommunication and industrial interdependence of the leading nations, the engineer who can neither speak nor understand with relative ease at least two foreign languages is at a serious disadvantage. In view of the growing industrial relations between the United States and the Spanish speaking nations to the South, and of the extraordinary developments of Italy in engineering, Spanish or Italian might be substituted, in some instances, for French or German, since it is obviously too much to expect the average American engineer to be familiar, as many Europeans are, with four languages besides his own.

While it is not expected, of course, that this Committee should suggest specific changes in the Institute's curriculum, it does venture to advocate the setting up by the Faculty of a committee of its members to make a comprehensive study of the place of foreign languages in the Institute's curriculum. Furthermore, since this is an administrative rather than an educational question, the Committee suggests consideration by the Executive Committee of a separation of the responsibilities of the modern language department, German to be under one control and the Romance languages: French, Spanish, and Italian, under another, and quite separate authority.

JAMES P. MUNROE, '82, *Chairman*
PAYSON SMITH FRANCIS W. FABYAN, '93
OTTO H. KAHN FRANK L. LOCKE, '90

Undergraduate Affairs

Track

IN the sixteen years from 1908 to 1923 Technology teams lost but thrice in the blue-ribbon event of their winter schedule, the mile relay at the B. A. A. Games. Dartmouth was the victorious opponent in 1910, 1911 and 1916, but was defeated on six other occasions. The scalps of Williams, Syracuse, Brown and Harvard were likewise collected. Harvard was defeated first in 1918 and again in 1920, 1922 and 1923 but was the victor in 1924 and 1925. Now after a two year lapse, C. B. Meagher, '28, G. H. Symonds, Unc., N. E. Howlett, '26, and Captain G. J. Leness, '26, triumphed over a Harvard relay at the Arena on February 6. The time was 3 minutes 31 8/10 seconds, appreciably slower than a week before at the K. of C. Games where the same team defeated Brown in 3 minutes 10 3/5 seconds. In the Brown race as well as the one against Harvard the victory was in great measure due to the excellent work of Captain Leness, who last spring broke Norman Tabor's record of twelve years' standing, thereby becoming New England half-mile champion. On May 24, 1913, the Brown runner ran the half-mile in 1:55 3/5; Leness made it in 1:55 flat on May 23, 1925.

More striking than his performance in either relay, however, was his defeat of Alan Helffrich of the New York Athletic Club, national A. A. U. champion, in the Bishop Cheverus 600-yard special at the K. of C. Games in Mechanics Building on January 30. In a remarkable start when he shouldered Haggerty of Harvard off the first corner, Helffrich raced into seemingly commanding lead in less than a lap. Round and round the field he went with Burns of Holy Cross and Leness dropping steadily behind. Helffrich was twenty-five yards in front of Haggerty, the second man, two laps from home, and every one started "essaying a romp." But the New Yorker must have mistaken his laps, for he sprinted two laps from the finish and seemed surprised when the bell rang as he came round. Then it all happened. Leness fought with the bell, went by Haggerty and flew after Helffrich.

Said the Boston *Herald's* writer: "Through that final whirl the excitement was intense. The gathering went mad, folks were out of their seats, but when the last corner was reached Helffrich was seven yards in front of Leness. Fighting with head down, he dived for the tape and managed to climb right up to his rival's shoulder. Then in a swishing finish he breasted his way across the line for a wonderful victory. The time 1 minute 17 1/5 seconds is proof of the pudding. There have been few better showings."

Helffrich gained particular distinction on May 27, 1925, when he defeated Nurmi at the Yankee Stadium over the 880-yard distance. This was the only race the Finn lost while in the United States.

How to Keep Warm

During the recent cold snap the ingenuity of the engineer was put to the test of devising a machine that would close the window long before the occupant of the room wished to arise so that when he did so the room was warm. This is the accomplishment of one of the undergraduates living in the dormitories.

Promptly at six every morning an antiquated alarm clock closes an electrical circuit sending a current through the primary of an old induction coil. The secondary is connected to a short spark gap. As the spark jumps this gap it burns a piece of thread suspended midway in the gap, thus releasing the steam valve on the radiator. At the same time the window catch is released and the window closes without slamming due to the presence of rubber buffers so the sleeper may not be awakened. Because of this mechanism its inventor is able to arise at eight in a comfortably warm room.

Song Book

In response to an urge from the student body the Institute Committee has undertaken the compilation of a new Technology Song Book. A committee composed of students active in the musical life of the Institute has been appointed to undertake this work and are now busy.

It is not believed that they will be able to publish the book before the end of this school year because the plates used in publishing the last song book over ten years ago have been destroyed. Along with the publishing of the song book itself, it is thought that folders containing only the words of the principal songs may be compiled to be used at class functions and smokers wherever there is occasion to sing Technology songs.

Since the publication of the last song book over ten years ago several additions have been made to the Technology Songs. For the past several years a prize has been offered annually for the best song submitted to the Prize Song Committee. To pay for the publishing of the book a nominal charge will be made for each one sold.

Merger

The outstanding undergraduate event of the past month was the announcement of an affiliation between Tech Show and the Athletic Association for mutual financial benefit. The merger plan as made public January 13 provides that the first $2000 above expenses made by the Show shall be turned over to the Athletic Association and that all profits above this amount shall be evenly divided.

The Association, as its part, agreed to use its entire organization of approximately 1000 men for the selling of tickets. Under the slogan "Make $2000 for Athletics" they plan to put across the Boston performances of the

Show in true Tex Rickard fashion. Tech, in commenting on the affiliation, said in part:

"The merger combines sound business sense with a coöperative spirit, the virtue of which is not to be denied. It brings forcefully before the Institute an example of the inter-relation of activity endeavors that is sound and salutary. And in a specific sense, it proposes to guarantee Tech Show adequate financial support and to the M.I.T.A.A. additional funds. To those acquainted with the precarious financial condition of these two activities this is welcomed as a real panacea.

"The success of the merger, we believe, will mean a show that will be less a professional adventure and more of an undergraduate institution. Its greater interdependence, we hope, will tend to remove the Show from the big business, Ned Wayburn artificiality toward which it has been drifting. In the place of this it will gain undergraduate spontaneity and refreshing local color.

"But of all of these, the putting into practice of the principle that an activity must have more reason for existence than the entertainment it offers the men in it is the most significant and far reaching."

The merger, instead of being recently conceived, marks a return to the original status under which the organizations worked. In 1898, the Athletic Association found itself badly in need of money. Some one suggested that some sort of show be given, and through the efforts of Mrs. Sutherland, the mother of A. W. Rowe, '01, a minstrel show was given that was successful and profitable. Out of this Tech Show evolved. Later the two activities parted company only to be driven together now by financial exigencies.

Political

The spring political pot is beginning to boil. Senior week elections come within the next month and already aspirants are scurrying around to make a final try for a twilight position in the local firmament. Fraternity houses are the scene of many a political caucus in respect to spring class elections. Activity competitions wax warm as the great army of unwashed strive bitterly for positions of power and grandeur. With their forthcoming issue, the present board of T. E. N. abdicates, the change coming much earlier this season than hitherto. The voluminous report arguing persuasively for an increased student tax has already started athletic managers, by the formulation of ambitious spring programs, counting their chickens before they are hatched. And somewhere, somehow a deep dark rumor stirs up pleasant expectations that the *Filter Paper*, alias *The Mop*, will sound shortly its ribald and acrimonious note in Institute corridors. So does the yearly undergraduate spectacle reveal itself with its really human undercurrents and its pantomimic exhibitionism.

Composite Session

(Reprinted from "The Lounger" in *The Tech* for February 12)

A composite bull session! Salubrious mirth rocks the Lounger when he deliberates over the idea. Say, for instance, Sammy Eskin, Dave Shepard, Wally Ross and Eddie Pung in a smoke-laden room. Take, for instance, the latest Freudian theory or the somnambulate Institute Committee for a subject. With such a setting imagine the discussion that would get under way. The late Eskin* with his broad and positive knowledge of world events in general and the Youth for Peace movement in particular would contribute the necessary extraneous matter. The towering Shepard** with his Coolidgeisms and his splendid rhetoric would gradually assume the leadership of the session and would direct the discussion except when he was searching for pertinent facts in

TECH SHOW 1926

Social complications in this year's musical comedy are obviously serious. One would judge from the above group that Act I was about to end disastrously for someone

*Samuel George Eskin, II, '26, of Harbin, China. Alleged liberal.

**David Allan Shepard, X, '26, of Denver, Colorado. President of Senior Class and Chairman of Institute Committee. Son of Frank E. Shepard, '87.

"TOO MANY BROTHERS"

From left to right on facing pages the players are R. B. Jones, '28, as Molly; Richard Whiting, '27, as Jim; E. W. Eddy, '26, as Will; and C. W. Harris, '28, as Barbara

the Undergraduate Constitution. The verbose Ross*** would bring in sweetness and light and an incomparable volubility. And Eddie Pung,**** worldly wise and cynical, would inject into the hodge-podge the sauce of ribaldry. With all these ingredients well mixed and boiling, the Lounger can see in his mind's eye a perfectly gorgeous situation. It would be the bull session par excellence, for it would contain the more mighty of the local cognoscenti, the more oratorical of the present Demosthenes, the more subtle of the indigenous celebrities. The affairs of the world and even those of the Institute might be settled therein and right merrily at that. The setting forth of the idea has so intrigued the Lounger that he makes bold to suggest that such a session be held. This is an age of conventions and committees and parleys and it is entirely apropos that we should have one of our own right in our midst.

For subjects to discuss the Lounger suggests the alarming Number of Engagements in the Class of '26, or The Effect of Helene Sweeney on our Athletic Standing, or The Possibility of Another Circus this Year, or How to Energize by Gland Transformation or Otherwise our present Junior Class, etc.

Tech Show

During the mid-term interim Tech Show took the most successful troubadouring jaunt of the past several years. First at Hartford, then way out at Pittsburgh, Buffalo and Schenectady they propped up their scenery and greased their faces for the edification of the Alumni and the glorification of the Technology boy with their current production, "Too Many Brothers." Reports have it that, for the cast and management, the trip was highly successful.

Experienced men in the Show were emphatic in their opinion that alumni support during this trip surpassed that of all others. In Pittsburgh a supper was given the entire company at the University Club, and there were other features, including a dance. The Alumni there presented the Show with $300 more than the contract called for. In Buffalo lunch was served at the Buffalo Athletic Club and a tea dance was held in the afternoon. A dance followed the performance. Dinner in Schenectady was furnished by the Alumni at Union, an inspection of the university was made, and the men were quartered in fraternity houses. Here the Alumni contributed an extra $100. In Hartford a party was given the Show at the Cadawaller home in Manchester.

In Pittsburgh E. G. Bromilow, '26, a member of the cast, was discovered to be suffering from mastoiditus and was rushed to the hospital for an operation. Here again the Pittsburgh Alumni evinced their generosity by taking full charge of the sick man. Carl Whittier, '27, stage manager, replaced him.

***Wallace M. Ross, Dartmouth '09, General Secretary since 1919 of the so-called T. C. A. (Technology Christian Association, not to be confused with Technology Clubs Associated.)

****Superintendent of Walker Memorial gaming rooms. Erstwhile Manager of The Cage, Tech Union (October 1, 1906 until demolishment of building *circa* 1917).

News from the Alumni Clubs

Technology Club of Virginia

THE Virginia Club is not a year old yet, having been organized on April 9, 1925, when Orville B. Denison, '11, Secretary-Treasurer of the Alumni Association favored us with his presence. It was really his reminding us of the good old days at Technology, in a way that only Dennie could, that brought us to the decision to organize the Club. It has been a difficult task but we are now on our way in earnest and we hope to keep our Club in the limelight.

The different engineering societies in Richmond have had some very prominent engineers and speakers at their several meetings. It is seldom that an individual organization can get a large attendance, therefore, several of these engineering clubs have organized an Allied Technical Society and are holding, from time to time, joint meetings. The first such meeting was held on October 23, 1925, in Richmond. The speakers were the Honorable James H. MacLafferty, assistant to Secretary Herbert Hoover, Professor John B. Babcock, '10, and W. B. Ferguson, President of the American Society of Industrial Engineers. The subject was "Wastes in Distribution."

A second meeting was held on January 16, 1926, in the Chamber of Commerce Rooms, Richmond. The speakers were John L. Harrington of the firm of Harrington, Howard and Ash, of Kansas City, Mo., and Calvin W. Rice, '90, Secretary of the A. S. M. E.

On January 19 a Radio Smoker was held at the receiving station of the Grace Covenant Church, Richmond, to listen in to the Radio Dinner held in New York.

On February 9 Orville B. Denison, '11, will be in Richmond to spur us on to still greater things and bring back memories of dear old Technology. The Allied Technical Societies will be invited to this meeting and dinner. We hope to have at this meeting Dr. J. A. C. Chandler, President of William and Mary College, who will speak on the William Barton Rogers Memorial at William and Mary.

DONALD N. FRAZIER, '11,
Secretary,
1215 Mutual Building,
Richmond, Va.

Technology Association of Northern California

In spite of unfavorable predictions from various stations of the broadcasting chain, twenty-two of the faithful gathered at the Engineers Club, San Francisco, to participate, so far as conditions of ether would permit, in the Phantom Dinner proceedings. The Pacific Coast Station of the General Electric Company, KGO, started rebroadcasting the proceedings about 6:45 p. m., Pacific Coast time, and continued until shortly before 8 p. m. Static was, however, unusually bad that evening, at least in or on the way to our portion of the continent. Only occasional fragments of the speeches were received clearly, but the music was easily recognizable.

Mr. G. Harold Porter, Manager of the Pacific Division of the Radio Corporation of America, fitted us out with a Radiola 28 and the best in loud speakers, so that we had all that could be got in the present state of the art through the electrical disturbances of a cold midwinter day in the Rocky Mountains. We were anxious to get an acknowledgment of the photo radio letter which we had sent through the courtesy of the R. C. A., but any such information was lost in the thumps and pops of the aurora and the squeals and howls of overloaded tubes.

After 8 p. m. we picked up the General Electric Station in Denver, KOA, and found they were still rebroadcasting from the Waldorf-Astoria.

Orville B. Denison's coming visit was announced locally, and a letter from Dr. Stratton to the Club was discussed. Elliot Holbrook, '74, Granddaddie of the Club, announced that he is retiring from railroad service in the West and returning to Massachusetts.

ARCHIE L. MOCK, '21, *Secretary*,
664 Howard St., San Francisco, Calif.

The Technology Club of Central Ohio

The second annual All-Technology Radio Dinner was the occasion of getting together a group of the Central Ohio Alumni at the Neil House in Columbus for the enjoyment of the program broadcast from New York and other cities. A permanent organization was formed during the evening. It was with great pleasure that we learned later from our Alumni Secretary that the Executive Committee had, at its meeting on January 25, accepted our petition for being a regular local Alumni Association.

An organization was effected at the dinner on January 19 by the election of C. E. Richards, '18, as President; A. E. Kimberly, '97, as Vice-President; and E. S. Burdell, '20, as Secretary-Treasurer. It was found that in Central Ohio there were nearly two score Alumni, and fourteen of them were present at the dinner. We are hoping to cover an approximate radius of twenty-five miles centering around the capital of Ohio.

It was rather the feeling of the group that there were not enough Alumni in the region to make it advisable to meet at very frequent intervals. We feel that there is a tendency toward too many organizations and that we might get better results if our meetings were confined to not more than three or four a year.

E. S. BURDELL, '20, *Secretary*,
20 South Third St.,
Columbus, Ohio.

Stated Meetings of Local Associations

ATLANTA	*Luncheon: Fridays at 12.30 p.m. at Ansley Grill*
BALTIMORE	*Luncheon: Thursdays at 12.30 p.m. at Engineers Club*
BIRMINGHAM	*Luncheon: Second Tuesdays at 1.00 p.m. at Tutwiler Hotel*
BUFFALO	*Luncheon: Fridays at 12.30 p.m. at Chamber of Commerce*
CHICAGO	*Luncheon: Tuesdays at 12.30 p.m. at Electric Club*
CINCINNATI	*Luncheon: Tuesdays from 12 to 2 p.m. at Hotel Havlin*
CLEVELAND	*Luncheon: Thursdays at 12.15 p.m. at Grebe's Rathskeller*
DAYTON	*Luncheon: first and third Saturdays at Noon at Engineers Club*
DENVER	*Luncheon: Joint Luncheon with Engineers Council monthly*
DETROIT	*Dinner: First Mondays at 6.30 p.m. at University Club*
HARTFORD	*Luncheon: Second and Fourth Thursdays at Hotel Bond*
INDIANAPOLIS	*Dinner: Third Fridays at 6.30 p.m. at University Club*
LOS ANGELES	*Luncheon: Every Friday Noon at University Club*
MILWAUKEE	*Luncheon: Thursdays at Noon at University Club*
PHILADELPHIA	*Luncheon: Thursdays at 12.30 p.m. at Wanamaker's Tea Room*
PITTSBURGH	*Luncheon: Fridays at 12.30 p.m. at Chamber of Commerce*
SAN FRANCISCO	*Luncheon: Fourth Tuesdays at Noon at Engineers Club*
SEATTLE	*Luncheon: First Wednesdays at 12.15 p.m. at College Club*
SHANGHAI	*Luncheon or Dinner: First Tuesdays, alternating between noon meetings at Carlton Café and evenings at Union Club*
TOKIO	*Supper: First Wednesdays at 6.00 p.m. at Imperial Hotel*
WASHINGTON	*Luncheon: Fridays at 12.30 p.m. at University Club*

Washington Society of the M. I. T.

The Washington Society of M. I. T. held its annual meeting coincident with the Phantom Dinner on January 19, at the Hotel Lafayette, Washington, D. C. There was an attendance of ninety-nine, thirty of whom were ladies.

Election of officers was held following the dinner and those elected for 1926 are as follows: President, James A. Tobey, '15; Vice-President, W. C. Dean, '00; Secretary, W. M. Corse, '99; Treasurer, C. H. Godbold, '98; Member of the Executive Committee, Past President N. C. Grover, '96.

A half-hour talk by Commander Edward Breck of the United States Navy Department, under the caption "Confessions of a Murderer" followed the business meeting. Commander Breck is an expert woodsman and has done a large amount of hunting which has led him finally to the conclusion that all wanton forms of killing game are wrong, and he is now in opposition to killing fur bearing animals by the usual methods. His talk was very inspiring and interesting. Following this the Phantom Radio Dinner was received and greatly appreciated and enjoyed by all members present and their guests.

The Washington Society wishes to congratulate the men in charge of the Phantom Dinner for its originality and its unusual success.

W. M. Corse, '99, *Secretary*,
706 Otis Bldg., Washington, D. C.

Technology Club of New Hampshire

A group of the Technology Alumni living in Manchester, N. H., held an informal meeting at the home of Harold Smith, '11, on January 19 to listen in on the Phantom Radio Dinner. The latest R.C.A. set and loud speaker were used and the reception was excellent. A telegram was sent to New York conveying the greetings of the Technology Club of New Hampshire. The experiment was so successful that the Club hopes to hold a regular dinner next year if the Phantom Dinner is repeated.

A. R. Holden, '23, *Secretary*,
278 Ash Street, Manchester, N. H.

Technology Club of Eastern and Northern Maine

On January 19 in conjunction with the Radio Phantom Dinner the local Alumni held a dinner and smoker. We were twenty-four strong, over 75% of the local alumni being present. Everybody enjoyed the evening immensely.

Radio reception on the evening of the dinner was very poor in Bangor and it looked almost up to the time of the program as if we would get nothing, or very little from New York. However, by means of an eight-tube Super-Heterodyne combined with a power amplifier, we got almost everything. We lost only a few words of General Dawes' speech because of the rattle of the amplifier.

H. H. Hanson, '12, *Secretary*,
71 Norfolk Street, Bangor, Maine.

The Alumni Technology Club of Cincinnati

The Technology Club of Cincinnati held a dinner at the Business Men's Club on January 19. Owing to the interference of powerful local stations no results could be obtained from the radio program from New York.

It was announced that the next meeting of the Technology Clubs Associated will be held in Cincinnati in April.

The following officers were elected for the coming year: President, F. W. Morrill, '07; Vice-President, Morten Carlisle, '90; Secretary, W. V. Schmiedeke, '12; Treasurer, Oliver L. Bardes, '21; Directors, Roy H. Green, '21, Rudolph Tietig, '98, and John Cochrane, '23.

W. V. Schmiedeke, *Secretary*,
74 Lumley Ave., Fort Thomas, Ky.

Technology Club of Fall River

Eighteen members and guests met in the Blue Room of the Quequechan Club, January 19, to listen in on the Phantom Radio Dinner which was being held at the Waldorf-Astoria in New York. The special radio set, which was installed by George Darling and Barton Albert, gave efficient service, especially while Dennie had the floor. His voice came in very clearly.

Delicious coffee and excellent ham sandwiches were served at ten-thirty, Alan Andrews being high man at the coffee pot, with Herb Smith running a close second.

This Phantom Dinner meeting was arranged by the members of the executive committee: Charles H. Warner, '89, Richard H. Gee, '20, Alden D. Nute, '17, Edward V. Carrol, '22, S. F. Hatch, '08, and Duncan S. Owler, '16.

Our annual meeting which is usually held in December, has been postponed until the early part of February.

Alden D. Nute, '17, *Secretary*,
345 Pearce St., Fall River, Mass.

New Haven County Technology Club

The New Haven County Technology Club held a very pretty party at the Spring Glen Clubhouse in Hampden on Saturday evening, January 9. There were about twenty members present. They were accompanied by their wives and friends.

Our President, Bill Whitcomb, gave a very interesting, though brief, lecture on the subject of Rubber, illustrating his talk with some practical experiments. After a series of motion pictures, ranging all the way from The Production of Rubber to Charlie Chaplin, dancing was enjoyed until twelve o'clock.

The Waterbury group of the New Haven County Technology Club held its own radio party January 19 at the home of F. M. Stibbs, '11. H. G. Manning, '12, was the committee in charge and the radio operator as well. The entire program came in very well. Those present were: H. G. Manning, '12, J. R. Putnam, '01, L. V. Clark, '15, W. G. Hauser, '14, R. M. Keeney, '09, E. H. Davis, '01, F. G. Purinton, '15, J. S. Visscher, '20, W. H. Dibble, '22, C. L. Holmes, '88, H. L. Morgan, '00, F. G. Smith, '11, A. L. Davis, '98, F. M. Stibbs, '11.

Forrest G. Purinton, '15, *Correspondent*,
10 Murray St., Waterbury, Conn.

Inland Empire Association of the M. I. T.

The Spokane Chapter of the Alumni Association of the Massachusetts Institute of Technology is glad to report a meeting. An enthusiastic dozen did their best to listen in on the program of the Phantom Dinner on January 19. Reception was almost impossible, but we did recognize a couple of Technology songs and there was no question but what we recognized the voice of Vice-President Dawes. Despite poor reception we had an enjoyable gathering at the Dixie Inn in Spokane, The Friendly City.

H. C. Bender, '09, *Secretary*,
South 1106 F St., Spokane, Wash.

Technology Club of Rhode Island

Thirty members of the Technology Club of Rhode Island assembled for dinner at the T. K. Club in Pawtucket at 6:30 p. m. on January 12. The Club was honored by the presence of two guests: our own Dennie and Mr. Walter Barrows of Philadelphia, a graduate of the University of Wisconsin. Both guests responded readily when called on for a few remarks. Dennie waxed eloquent regarding the plans for the radio Phantom Dinner. Mr. Barrows' remarks were in a somewhat lighter vein and his singing was a distinct contribution to the spirit of the occasion. The famous S. A. E. quartet attempted to render its old favorite, "Alice Blue Gown," but showed a deplorable lack of practice. The arrangements for the dinner were in the capable hands of John C. Nash, '20. He was assisted by Howard C. Fisher, '09, James I. Finnie, '09, and Morell Mackenzie, '11, who contributed substantially to the entertainment.

After dinner a brief business meeting was quickly adjourned so that all present could prove their skill on the alleys. Four teams captained, respectively, by H. C. Fisher, '09, Jim Finnie, '09, Thayer Gates, '02, and Dennie, '11, battled for supremacy through two tightly contested strings. Fisher's team proved to have the most consistent luck and turned in the high team total for each string. Dennie's team, however, boasted the greatest collection of individual stars with R. L. Fletcher, '15, carrying off the honors for the high single followed closely by his guest, Mr. Barrows of Wisconsin, and H. L. Nash, '20, turning in the high two-string total. Some of the more enthusiastic bowlers kept it up for a third string but their prowess will have to go unreported. As all the prizes had been given out, the Secretary did not think it worth his while to stay for the last string. Half a dozen of the amateurs present had a little contest of their own to see who could put the greatest number of balls in the gutter but for several reasons, their names will not be mentioned.

The next regular meeting of the Club will be held during the latter part of March and will probably include a dinner followed by a

theatre party. Some of the members are planning to form a Technology group at the annual banquet of the Providence Engineering Society in February.

L. E. KNOWLTON, '16, *Secretary*,
Providence Gas Co., Providence, R. I.

Dayton Technology Association

Thanks to the announcement of the Phantom Dinner for that date, the Dayton (Ohio, not Tennessee) Technology Club knew that its annual dinner should be held on Tuesday, January 19, and arrangements were made accordingly. In the past we never knew when the annual meeting should be held, and the date usually depended on whether the officers wanted to keep their jobs or get rid of them. One year our President was so enamoured of his position that he didn't have any annual meeting and so kept the job for two years. But those happy days are past and radio is responsible.

Having tried twice before to get our Annual Meeting program off the air, we thought we knew how to go about it. Two years ago we had pretty poor success, and last year, I understand it was worse (I stayed away, myself, so cannot say anything about that). This year we decided to avoid the mistakes of the past. First we decided to forsake the Engineers' Club which is down town, and have the dinner at the Dayton Country Club. Second, we got a radio company to use the occasion to demonstrate the latest R. C. A. six-tube superheterodyne radio set using a Brunswick Pentatrope as a loud speaker.

The first and best part of the evening's program was the dinner, at the end of which the following officers were elected for the coming year: President, C. H. Spiehler, '08; Vice-President, R. Insley, '19; Secretary-Treasurer, E. J. Barney, '16. In the past, the last named officer was generally known as the "Custodian of the Deficit," but Chief Spiehler, who has held it for the past two years has made that name inappropriate. It was in recognition of his services in that respect that we promoted him to the office of President.

After the dinner we tried to listen in on the Phantom Dinner program. For the first hour or so we had very little luck, even with the music. We got enough snatches of Dr. Stratton's talk to realize that it would have been very interesting if we could have heard it. We didn't even get that far with Mr. Eastman's — all we got of that was the announcement. Along about the middle of the program, our radio outfit seemed to gain courage, and the music, at least, began to come in in good shape, as did General Harbord's talk. Vice-President Dawes' was not so good. At times we were not sure whether we were getting some of the language that made him famous, or more static. Judging by the number of senators he had to apologize to the next day, it would seem as if we missed something. Not long after the Dawes speech the meeting broke up.

The attendance at the dinner was only about half what we usually have at our annual meetings, owing to the competition of Paderewski and a talk on Aluminum at the Engineers' Club. If we had been better prophets, the competition would have been even more effective. The only really interesting number, though not on the program, was some pictures brought back from Paris by one of our members who has recently been abroad. Otherwise the evening was a total loss.

There are two strong movements in the membership as a result of the evening's experience. One is to consider the announcement of another Phantom Dinner as a notice of when not to have our annual meeting. The other, more conservative attitude is that we should have the dinner and election of officers held early enough in the evening to permit the individual members to return to their homes, ostensibly to get the program off their own radios. There was not a radio bug present who would admit that he could not have gotten better reception with his own set. But, then, it is a well known fact that the radio bug is of the same ilk as the golf bug and the ardent fisherman.

ALFRED J. NILES, JR., 17, *Correspondent*,
311 Salem Ave., Dayton, Ohio.

Montana Society of the M. I. T.

Although the Montana Society of M. I. T. held no dinner for the radio reception on January 19, there were gatherings of former students in various cities in this state. Technology is not so well known in this section as it should be and we grasped this opportunity to put forth a ream of publicity in all the papers of Montana and Wyoming. (Wyoming has no M. I. T. Association, so we covered it in the hope that it will ultimately do the Institute some good.) The fact is, in the last week three high school students have phoned to me asking for entrance requirements and general information on Technology.

The first publicity put forth emanated from the office of the Secretary. After that the committee on information put out the items for the press and especially good work was done by Albert E. Wiggin, '07, Great Falls committeeman, who covered not only Great Falls, but all of northern Montana as well. The publicity committee consisted of A. E. Wiggin, '07, Great Falls; C. H. Clapp, '05, Missoula; John K. Heller, '16, Helena; R. R. Goodrich, '84, Anaconda; J. A. Thaler, '22, Bozeman; A. F. Rich, '13, Billings; C. W. Goodale, '75, and Carl J. Trauerman, '07, Butte. This committee, as a result of the heavy publicity which it put on, has been dubbed the "Radio-active Committee of the Northwest."

The program did not come through very well as the peculiar hook-up of radio relay stations seemed to drown out the program and in addition to that there was a lot of local interference.

The next activity of the Montana Society will be the welcoming and entertaining of Orville B. Denison, '11, who will be in this city from March 12 to 14 inclusive.

CARL J. TRAUERMAN, '07, *Secretary*,
1800 Phillips Ave., Butte, Mont.

Intermountain Technology Association

The following Technology men were present at the Technology Phantom Radio Dinner held at the University Club in Salt Lake City on January 19: Lewis T. Cannon, '96, Louis S. Cates, '02, R. W. Senger, '05, William Jennings, '15, W. L. Whittemore, Jr., '05, W. W. Binford, '25, Clem C. Carhart, '04, Eugene W. Sloan, '20, Owen H. Gray, '97, Ralph M. Emerson, '14, and W. H. Trask, Jr., '06.

While the radio reception was not everything that could be desired, still the occasion was a very enjoyable one. We are of the opinion that the lack of clarity was due to the rebroadcasting, as the signals received immediately before from KOA at Denver were remarkably clear.

Sylvester Q. Cannon, '99, has been chosen Presiding Bishop of the Mormon Church. Among the newcomers to the Intermountain Association are: Ralph Emerson, '14, L. P. Stafford, W. W. Binford, '25, Albert E. Lindsey, '24, and George H. Holmes, Jr., '24.

WALTER M. TRASK, JR., '06, *Secretary*,
Salt Lake Hardware Co., Salt Lake City, Utah.

Technology Club of Lower Canada

The two meetings which the Technology Club of Lower Canada has held this season have been marked by the highly appreciated coöperation of two of Canada's large industrial organizations: The Victor Talking Machine Company of Canada, Ltd., and the Northern Electric Company, Ltd.

The first of these meetings was held in conjunction with the Northern Electric Engineering Society at the building of the Engineering Institute of Canada after a dinner at the Queen's Hotel. E. M Berliner, '06, President of the Victor Talking Machine Company, was kind enough to arrange for a special demonstration of the new Orthophonic Victor on that evening. This was, in fact, prior to the formal début of this new invention before the public. The work of the Bell System, including the American Telephone and Telegraph Company, the Western Electric Company, the Bell Telephone Laboratories, and the Northern Electric Company, in conjunction with the Victor Company, in producing the new machine was explained and it was with much pride that we noted the names of J. P. Maxfield, '10, and H. C. Harrison, '13, as the inventive wizards behind the new development, with other Technology men associated in various ways. The acoustic principles of the machine were explained and a very effective demonstration given using a thirty-year-old phonograph of the type pictured in the Victor trademark which together with the records of those days were strangely enough made by the Northern for the Victor Company; a present day machine; and then the Orthophonic Victor with the new electrically recorded VE process records. It is of further interest to Technology men to note that these new records were also developed in the Bell System laboratories by the same men who are responsible for the new phonograph. Technology is certainly well represented in this work and, though a coincidence, it is fitting that two beloved Technology songs were among the first month's releases of the new process records: The Stein Song and A Winter Tale.

The second meeting was held in ethereal conjunction with the M. I. T. Phantom Dinner. For the radio part of this meeting the Northern Electric Company kindly permitted us to use the well appointed reception room of their broadcast studio for station CHVC, Montreal. Here was specially installed for us a new Victor-Northern

Electric peanut tube superheterodyne, a power amplifier and a huge paper cone loud speaker. Needless to say, we were tuned in on the M. I. T. program from beginning to end and we wish to take this opportunity to thank all those who participated in this big undertaking for their whole-hearted aid and coöperation. Particularly do we wish to thank L. D. Gardner, '98, for his untiring efforts.

Alumni coming to Montreal are requested to drop a note to the undersigned so we can be prepared with the brass band and all the trimmings. The Secretary is sorry to admit his part in causing the scarcity of meetings this season by being out of town. But the old Technology spirit is as strong as ever and probably truer to tradition here than across the border — "With a stein on the table."

We are looking forward to a long-promised visit from Dennie, and maybe an annual Technology dinner in Montreal in the near future. What say?

CAROLE A. CLARKE, '21, *Secretary*,
121 Shearer St., Montreal, P. Q.

M. I. T. Club of the Mohawk Valley

A very successful and enthusiastic meeting of some of the alumni in and about Utica, N. Y., was held the evening of January 19 at the University Club, Utica, being a part of the Phantom Radio Dinner held by the Association. Quite a number of the men in the vicinity could not be present due to previous engagements and sickness, but all who could be reached were very enthusiastic about organizing a local club, and those who were present at the meeting thought it advisable to form a provisional organization and petition the Executive Committee for permission to organize. We were indeed delighted to learn from our Alumni Secretary that the Executive Committee had approved our petition and that we now exist as the M. I. T. Club of the Mohawk Valley.

In the hope that our petition would be granted, the following officers were elected and will serve for the current year: Edwin A. Gruppe, '22, President; Wheaton I. Griffin, '07, Vice-President; and Clarence Reeds, '09, Secretary-Treasurer.

Within a radius of twenty miles of Utica are approximately two dozen Alumni and we believe we can be of considerable benefit to the Association and indirectly to the Institute by being able to organize and thus act in a concerted manner.

CLARENCE REEDS, '09, *Secretary*,
407 Franklin St., Utica, N. Y.

M. I. T. Alumni Association of Nashville

We have recently formed an Alumni Association of Technology men here in Nashville and vicinity. There are eleven men in Nashville and nine at Old Hickory, sixteen miles distant. Out of this number we were able to have twelve present at our Radio Dinner, as follows: Keeling, '07, Harrub, '09, Jones, '19, Muhlig, '98, Howard, '12, Dennett, Southgate, '11, Burr, '13, and Johnson, Epstien, Cary, and White, whose class numerals are unknown.

We had a fine dinner at the Hermitage Club as the guests of G. B. Howard, '12. After about a half hour we got good connections to the New York station and heard the balance of the radio entertainment. It came in splendidly and we enjoyed it immensely. When they gave those cheers we all rose to our feet and yelled ourselves. Of course, we were not heard but that made no difference.

During the dinner we appointed a committee to see that Dennie gets a proper reception on his visit to this city late in March. From the spirit shown at the dinner I am satisfied we will have a fine crowd to meet him. The committee appointed for Dennie's reception consists of Howard, '12, Chairman, Harrub, '09, Cary, '12, and Burr, '13.

The officers elected for 1926 were Donald Southgate, '11, President, G. B. Howard, '12, Vice-President, and Henry Burr, '13, Secretary-Treasurer.

H. A. BURR, '13, *Secretary*,
3515 Richland Ave., Nashville, Tenn.

M. I. T. Alumni Association of Cleveland

On Tuesday evening, January 19, the Cleveland Club held one of its most successful meetings. Seventy men met for dinner at the University Club — the largest attendance at a Cleveland meeting for a number of years. As Henry Howard, '89, our President, had been called South for the winter his place was filled by Albert D. Hatfield, '96, as presiding officer. The local speaker of the evening was Edward S. Jordan, President of the Jordan Motor Company. He spoke for about an hour upon the transportation problems of the day, suggesting that motor vehicles are destined to supplant the street railways of the country, and that the time is near when the airplane will be taken out of the hands of engineers, as an experimental problem, and put into commercial use. Mr. Jordan mentioned that at present it took longer to drive from the Cleveland airfield to his Cleveland home than it did to fly from Cleveland to Detroit. After the talk by Mr. Jordan, the chairman requested each person present to give his name and state his present occupation, which made for closer acquaintanceship. It was a great privilege to have with us our former President, Frank A. Smythe, '89, who made a brief address. Radio connection with the country-wide Radio Phantom Dinner was then established, and although the Cleveland University Club seemed to be hoodooed for radio reception, we heard Dr. Stratton and General Dawes quite distinctly. We were glad to welcome to Cleveland three men from the Glenn L. Martin Company: Heraclio Alfaro, '25, Alan L. Morse, '21, and Lawrence B. Richardson, '21; also J. M. Waechter, '22, of the Kay Machinery Company of Cleveland.

An interesting future event is the Intercollegiate Luncheon sponsored by the Cornell and Dartmouth Clubs of Cleveland to which all Technology men are cordially invited. Conant Van Blarcom, President of the Cornell Alumni, is in charge of the luncheon at which ten or twelve colleges will be represented and there will be a speaker from the East who has been in some way associated with intercollegiate athletics.

For our next meeting, which takes place early in March, we shall have Mr. Norris of Stone and Webster talk with slide illustration upon "The Twelve Hundred Pound Steam Turbine Installation" of the Boston Edison Company at their Edgar Station at Weymouth, Mass.

It is hoped that any Alumni from other cities who are to be in Cleveland at that time will attend both of these meetings.

A. ILSLEY BRADLEY, '21, *Secretary*,
1010 Oregon Ave., Cleveland, Ohio.

Technology Club of New York

One of the most enjoyable Technology Dinners ever staged was held on Tuesday evening, January 19, at the Waldorf-Astoria under the auspices of the Technology Club of New York. Through the courtesy and kind coöperation of the Radio Corporation of America, General Electric and Westinghouse Companies, more than 20,000 graduates of the Institute had the privilege of listening in on the very interesting speeches.

The after-dinner speeches were made in four cities, New York, Washington, Cambridge and Rochester and were broadcast by seven radio stations between New York and California, two of which sent them across the Atlantic and Pacific Oceans.

Vice-President Dawes spoke from Washington after being introduced by Major-General Harbord, President of the Radio Corporation of America. Mr. George Eastman, our Institute's generous benefactor, spoke a few words to Technology men for the first time.

The President of the New York Club announced preliminary plans for a twenty-five-story Technology Building in the Grand Central Terminal district, which would be known as the National Technology Center and which would contain offices for the President and Corporation members of the Institute, as well as for the many Institute Professors who constantly come to New York on consulting work. Mr. Desmond stated that the building might well house the Alumni Association and the business offices of The Technology Review and finally should contain social club rooms, library, bedrooms and restaurant as a New York social center for a Technology man.

Over four hundred telegrams were received during the course of the Dinner from all sections of the United States and also from London. The speeches were distinctly heard in New Orleans, Miami, Denver and on the Pacific Coast. Mr. Desmond has received, since the banquet, over five hundred letters from people who listened in on the entertainment, many of whom are not Technology graduates; and the Radio Corporation is in receipt of several hundred more. All in all the Dinner was a tremendous success and again proves what Institute graduates are capable of accomplishing.

A campaign to secure new members for the Club has recently been started and is already on the way toward success. Approximately thirty men have joined in the past week and we are urging each member to secure a new member and thus help us materialize in our plans for the immediate future which will mean a greatly improved New York Technology Club.

DUNCAN R. LINSLEY, '22, *Secretary*,
Harris, Forbes & Co., 56 William St., New York, N. Y.

News from the Classes

News from even-numbered Classes is published in issues dated November, January, March and May. News from odd-numbered Classes is published in issues dated December, February, April and July. The only exceptions to this rule are those Classes whose Secretaries have guaranteed the appearance of notes in every issue. These Classes are: 1895, 1896, 1900, 1901, 1902, 1905, 1907 and 1910 to 1925 inclusive. Other Classes adhere to the alternate schedule. Due to necessary limitation of space, The Review is unable to publish lists of address changes of members of the Association. The Alumni Office, in Room 3–209 M. I. T., will supply a requested address or will act as the forwarding agent for any letters addressed to members of the Association in its care.

'72

William Q. Wales, with Mrs. Wales, has sailed on a Mediterranean trip to be gone nine weeks. — Edgar Upton, at last accounts, was in Southern France visiting a daughter who is living there. — The Secretary, himself, spent about ten weeks in France with his family, a party of five, using a fine little Chevrolet touring car, a used car which he sent over and sold before returning. Eleven days in Paris, about that many more in the Chateau Country, of which Tours is a center, and most of the balance along the Brittany Coast, with a short time in Normandy, constituted the story. Quite by chance, both as to time and place, Dr. Tyler's automobile and mine were unexpectedly found side by side in the hotel garage at Tours. How France can pay external debts is beyond me. Hotel rates where we traveled, about $2.50 a day, had not increased since before the war, and were about one half those in England. A taxi in Paris cost for one mile about twenty cents for five people; and a thoroughly good hair cut, in the country, cost ten cents or with tip, fifteen cents. Traveling 1500 miles in about six weeks gave us ample time to look around, see the country and the people, and have a vacation rather than a purely sightseeing experience. We recommend it to others. It should be borne in mind, however, that crating and freight cost high, and an American car does not sell well, as the tax on horse-power is very high. For a party of four it is better to buy a small French ten-horse-power car which will be saleable when no longer needed.

C. Frank Allen, *Secretary*,
88 Montview St., West Roxbury, Mass.

'74

Referring to Charles Shove's death, which was announced in our news item of the January Review, we find an obituary notice in the Fall River *Globe* which reads in part as follows:

"He was educated in the public schools and graduated from the high school in 1870. He spent two years at the Institute of Technology, after which he entered the office of the Granite Mills as clerk and draughtsman. In 1875 his father died, and he assumed the treasurership of the mills, a position he held until April, 1924, when he resigned because of advancing age. It was through his efforts that in 1903 the No. 3 mill of the plant was constructed. During his tenure of office, the spinnage of the plant was practically doubled. For many years Mr. Shove was associated with the Massasoit-Pocasset National Bank and, at the time of his death, was President of the Corporation. He was also at one time a member of the boards of the Bourne and Shove Mills and a director of the Fall River Manufacturers' Mutual Fire Insurance Company."

The annual Alumni Dinner, January 11, in the new Chamber of Commerce Building was attended by a goodly number of '74 men, viz: Barrus, Chase, G. T. Elliot, Nickerson, Read and Russ. The food, the organ music, the soprano solos, and the after-dinner speaking by President Hayden, Dr. Stratton and Messrs. Morrow and Herty were much enjoyed. Another recent event was quite as enjoyable, though attended by only one '74 man, and that was the Phantom Radio Dinner celebration of January 19 at Walker Memorial in Cambridge. The broadcasting feature proved to be a wonderful radio exhibition. The rousing Technology cheer, which closely followed President Stratton's talk, seemed to be echoed back from the participants in the distant cities, for immediately the last cheer of the New York gathering came through and greeted us in enthusiastic response. The concert in the early portion of the entertainment, which was given by the various musical clubs of the undergraduates (and especially the numbers presented by the male quartet), was of the highest grade. It almost made one wish to be carried back fifty years or more, and be once again a Technology student.

Blunt, who has changed his employment to that of staff engineer for the D. P. Davis Properties, St. Augustine, Fla., writes that he wishes news from '74 men could appear in every issue of The Review, which he eagerly looks for. He sends regards to all the boys and hopes to be with us again some day.

In a second letter Blunt gives an account of his past engagement with the government and his present employment in St. Augustine, as follows: "I am glad to tell you something of my radical change in occupation and location, in the special hope that some of the boys may drop in and 'shake.'

"My long service in the engineering department of the United States terminated by legal retirement about a year ago. It is interesting to look back to my first public service, which was with the Coast Survey, during vacation of 1873. This does not mean that that service has been continuous since then, but Uncle Sam has had my best efforts during thirty-five years of the period. I fear that, if I had not escaped occasionally into other realms of duty, I would now be tied hand and foot in the so-called government rut. Fortunately, I am still able to meet the world on a business basis and to keep busy and active both bodily and mentally. George Doane will recall our pleasant Coast Survey experience in 1874–1875, when we were shipmates on the old schooner *Research* — and George may remember with how much relish he remained on deck in heavy seas.

"Really, my government experience has been very interesting and varied: Coast Survey, Mississippi River surveys, subaqueous rock excavation at Panama, river and harbor improvements for seventeen years on Lake Erie and eleven years on Lake Michigan.

"After retirement, and some effort to adjust myself to the new conditions, I have become attached to the D. P. Davis Properties, a most wonderful organization which is the leader in the vast Florida improvements now going on. The work here is a reclamation and development of about 1,500 acres of soft marsh on Anastasia Island, in front of St. Augustine. This island is about thirteen miles long with ocean frontage on the east, Matanzas River on the west separating it from the city of St. Augustine, and with an ocean entrance around each end, north and south. The hydraulic fill will amount to about 12,000,000 cubic yards which will be retained by bulkheads and seawall. Three large suction dredges are now at work with discharge pipes of twenty inch, twenty-two inch and twenty-seven inch respectively and the filling is making rapid progress. This hydraulic filling is under my immediate charge and many interesting problems are met with on such work."

Holbrook writes that he also reads and welcomes the News from the Classes with great interest, especially all items regarding '74 men. He keeps in touch with a number of them himself, having recently heard from Hamilton, Howard and Emerson, and, being far from the majority, he values more and more these contacts. He hopes to remain in Berkeley for two years yet.

We are greatly pleased to hear from Perkins, in Pasadena, for we all keenly regret the physical infirmities he has long suffered. He now writes that he is in much better condition and is able to take a daily walk of two to eight miles, besides sometimes attending the local Technology dinners. He says: "The place where I live now is often known by the unofficial name of Altadena, a name given to it, it is said, by the daughter of a wealthy patent or proprietary medicine dealer called Colonel Greene. Although the Altadenans have no city government and no city taxes, they do not appear downcast but seem much like their neighbors. I think their houses are more likely to have

1874 Continued

real fireplaces and chimneys. I send you a picture of mine and should be glad to see you or others of the old boys there. It is about 1,000 feet above sea level on the flank of Mt. Wilson where the largest telescope in the world may be seen as well as certain objects, which can be seen only by means of this instrument."

CHARLES FRENCH READ, *Secretary*,
Old State House, Boston, Mass.

'88

The Secretary is again called upon to announce the death of one of our members. Arthur Winslow Jones, manager of the Far East Department of the International General Electric Company since its formation in 1919, and a member of the advisory committee of the company, died at his home in Schenectady, N. Y., on December 26. Following his graduation from the Institute in 1888, he entered the employ of the Thomson-Houston Company in Lynn, Mass., and in 1891 was made chief engineer of the International Thomson-Houston Company. After the organization of the General Electric Company, he went to South Africa in 1894 and to Australia in 1895, where he was managing director of the newly formed Australian General Electric Company. He returned from Australia in 1905, and became manager of the railway signal department. At the same time he continued active interest in the foreign department. Previous to the formation of the International General Electric Company in 1919, he was a director on the boards of different foreign selling companies. As manager of the Far East Department of the International Company, Jones had general direction over activities of the company in Japan, China, Australia, South Africa, India, Philippine Islands and Dutch East Indies. Jones was married, and had two children, Alfred Winslow, and Duryea Huntington.

A. D. Nickerson is in St. Petersburg, Fla., engaged in the development of Treasure Island. — Charles A. Stone has been elected Director of the First National Bank, Boston. — Ralph Sweetland, for many years connected with the New England Insurance Exchange, Boston, has been elected Secretary of that organization.

Members of '88 present at the Alumni Dinner were Webster, Sawyer, Runkle, Keough, Wood, Reynolds, Collins and Snow.

WILLIAM G. SNOW, *Secretary*,
112 Water Street, Boston, Mass.

'94

The period since the last report has brought news of '94 of both happy and distressing character. In addition to records of achievements and new honors, the Secretary is faced with the sad duty of reporting the further depletion of our ranks which had already suffered heavily in the battle of life.

Robert H. Kirk, for ten years Comptroller of the Rockefeller Foundation in New York, died on November 10, at his home in Summit, N. J., after a long illness. After over twenty years of engineering work in which his high administrative capacity was amply proved, Kirk became associated with the Rockefeller Foundation in May, 1915, as its first Comptroller. He organized its accounting and purchasing departments, and served as the first office manager in an office handling an enormous amount of detail not only in America but in various parts of the world. From 1918 to 1921 he was a trustee of the Peking Union Medical School, an institution supported by the Rockefeller Foundation, and in 1918, when the buildings of the school were in process of construction, he visited Peking to advise on building operation.

The Secretary had the pleasure of calling on him in New York on two or three occasions, and found him always the same quiet, courteous and efficient man that we remember with such pleasure when we were students together. Ill health combined with the exacting duties of his position prevented Kirk from attending class reunions and similar events, but there was never a more loyal member of the Class, or one deserving of more affection and respect from his fellows.

He was born in St. Paul, Minn., June 10, 1872, the son of the late William D. Kirk, President of the Capitol Bank. He is survived by his wife, Edith Styles Kirk, and two sons, Norris and Allen, to whom the deep sympathy of the whole Class is extended.

Willard F. Spalding died on December 23 at his home in Swampscott, after an illness of several weeks. Although not remaining through the four years at Tech, Billy, as he was generally known to the '94 men, was a most loyal member of the Class, and could always be counted upon to support any Class or Institute project. I think one of his most striking characteristics was his friendliness and generosity of spirit, for I am sure he had the warmest regard for all the men he met at class reunions, and he greatly enjoyed these events and added much to their enjoyment through his athletic skill, especially at golf, and by his general versatility. He will be sadly missed at our future meetings, but he will be remembered with deep and lasting affection.

Spalding was born in Lynn in 1872, and entered the Institute from the Berkeley School in Boston. In 1892, after two years in the course in mechanical engineering, he entered the brokerage business with Adams, Blogett and Company. He remained with this organization for about fourteen years in Boston and New York, and in 1906 became a member of the firm of Collins, Spalding and Company, dealers in investment securities, and continued in this relation until his untimely death. He had a delightful home at Swampscott, was a member of the B. A. A., Corinthian Yacht Club, Neighborhood Club and Tedesco Country Club, and a director of the National City Bank of Lynn. He is survived by Mrs. Spalding and one daughter, Nancy, to whom goes the cordial sympathy of the Class. A note from Mrs. Spalding requests that the Secretary express her appreciation to the Class for flowers sent in remembrance of a loyal and great-hearted friend.

Kindly thoughts and generous sympathy will go out from all the Class to two of our members, Professor Joseph W. Phelan of the Institute and Harold M. Chase of Danville, Va., whose home circles have been broken during the past few weeks. Mrs. Phelan was a graduate of Smith, '96, a woman of charming poise and breadth of interests, and an ideal wife, mother and home-maker. Mrs. Chase was formerly of Wilmington, N. C., a member of a prominent family in that city.

We may generally count upon C. G. Abbot to supply the basis for an interesting note. If you have read your January *National Geographic*, you will recall an excellent article by him dealing with the subject of Solar Radiation. Abbot is just now in charge of an expedition, under the coöperative auspices of the National Geographic Society and the Smithsonian Institution, having for its objective a site in the Eastern Hemisphere for a station which will measure daily variations in the heat of the sun. Abbot sailed from New York early in November, via England to Morocco, then to Southwest Africa and later to Baluchistan. The practical outcome of this work may be the ability to forecast the weather for long periods in advance.

L. R. Nash has recently brought out a new book on *Economics of Public Utilities*, a field in which he has worked for many years and is a recognized authority. The book discusses every angle of the public utility as a business, and is designed for the use of engineers, public officials and bankers. It is published by McGraw-Hill.

This will announce the successful completion of one year of life of Horatio N. Parker, Jr. The notice of his birth was delayed in transmission. Harry Batcheller journeyed to Florida to serve as godfather, so the boy was successfully named and started out on his long journey. Parker reports that C. D. Pollock recently stopped off for a brief visit on his way back from Cuba where he has been doing some engineering work.

M. S. Chace has shaken the dust of Dorchester from his feet and is now settled (if M. S. can settle) in New York. — At last Sam Reed has not only been heard from but seen. He came East owing to the illness and subsequent death of his father and remained for a period sufficient to arrange for settlement of the estate. The Secretary had the pleasure of a call from him, the first meeting in fifteen years. Sam is just the same as he was in 1894, although with a trifle more girth and less hair. He has a ranch or estate at Nehalem on the Oregon coast, and with farming, lumbering, stock raising and public service manages to keep busy. He is one of the county commissioners of his county, and as such is doing a great deal in the development of good highways, his pet project at present being a link of the wonderful coast motor highway which skirts the whole Pacific coast from the Columbia to Southern California. He has also been busy in many other good works in building schools, churches, and so on.

Frank McKibben has resigned from Union College where he has been, for several years, the head of the department of civil engineering. His resignation will take effect in June. He has also resigned as city engineer and member of the Planning Commission of Schenectady. A newspaper article dealing with the matter says "Professor McKibben as city engineer has been one of the strongest figures in the present city administration. His resourcefulness and ability as an engineer have enabled him on many occasions to save the city considerable sums of money and to guide the administration into proper and efficient channels of civic improvement. He has devoted much of his time to the end that public engineering problems might be wisely and expeditiously solved.

Ninety-four men having sons at Technology this year include

1894 Continued

F. H. Robbins, G. A. Taber, L. Dana, H. L. Newhouse, W. E. Piper and J. W. Phelan. Phelan's son is a graduate student and an Instructor in Physics.

The Class will soon receive a letter regarding the plan for new dormitories at Technology which is now being put through the formative steps. The Secretary suggests that '94 men make their contribution as a memorial to those members of the Class who have left us, and believes that we could not more fittingly honor them. The matter will probably be presented to the committee on a gift to the Institute appointed at our last Reunion before these words are in print.

SAMUEL C. PRESCOTT, *Secretary*,
Room 10–405, M. I. T., Cambridge, Mass.

'95

The Class of 1895 has always been celebrated for its conservative and reserved disposition, and this probably accounts for the difficult task of prying some of them loose to learn of their abodes and their doings.

The response to our call for news items has only been fair, and we are patiently waiting for those who have promised to come across with the story of their lives, so that others may be enlightened and profit thereby.

Richard Morey has furnished us with the information that Gerard Swope, President of the General Electric Company, has created a fund of $50,000 to send young men to college from the St. Louis High Schools, and states in part: "These bigger things get the publicity, yet this about Swope is a continuation only of a story that might be told. When Swope was in St. Louis as a young salesman he gave time and work to welfare matters, and secured playgrounds and the development of small parks where they were most needed." Quoting from the St. Louis *Globe-Democrat* of December 24: "Gerard Swope of New York, President of the General Electric Company, a native St. Louisian, has given $50,000 to the St. Louis high schools to be the beginning of a fund, the income of which is to provide St. Louis boys and girls with scholarships at American universities. The gift is a memorial to Mr. Swope's father and mother, who spent almost fifty years of their life in St. Louis. The gift, in the form of securities, has been deposited with the Mercantile Trust Company, as trustee, and the income will be administered by a committee appointed by the President of the Board of Education. The endowment is calculated to yield $3,000 a year in the beginning and an increasing amount later under a plan known in some colleges as the 'Swope Plan.'

"This plan was first announced when Swope became a member of the Corporation of the Massachusetts Institute of Technology. [The Technology Review for May 1924, p. 375.] In effect, it provides that the recipient of a scholarship shall return to the fund the original advance to him plus interest, and such additions as he may elect, so that the fund may do for others what it did for him, in the event that he should become successful in after years."

This indeed is a fine philanthropy and every man in '95 is proud to possess the true friendship of his classmate, Swope. Such is typical of the man whose vision and incentive is a great stimulus to us all.

The '95 men who attended the Alumni Dinner on January 9 at the Boston Chamber of Commerce were T. B. Booth, F. A. Bourne, Gustave Clapp, F. A. Hannah, W. S. Williams, and L. K. Yoder. We were small in numbers but mighty in appetite, and had a great reunion.

We learn from Walter W. Reed that he has severed his connection as assistant engineer with the N. Y. and N. J. Bridge and Tunnel Commissions, and accepted a position as associate electric engineer with the Bureau of Yards and Docks, Navy Department, Washington, D. C. You may reach him at 1328 Randolph Street, N. W., Washington, D. C.

R. W. Carr writes us from San Antonio, Texas: "Nothing new, old top; same old rut. Cheap oil and unlimited natural gas have taken the fuel market." What would he say about coal if he were in New England! Good for Carr, we are glad to hear from him, nevertheless.

We have a line from W. D. Parker from Boston which is interesting and illuminating. Win tells us that "No architect spends time thinking about the future; if they did they might go crazy. Bachelors have to take wives and children as a part of the scenery, and like the scenery they vary. Some of them look pretty good from the outside looking in." Well, Win, you are some philosopher. Let us hear from you often.

Now we hear with delight from Billy Hall. Bill is just the other way; he is a married man and enjoying all of it. His family of five children are his perfect delight. He states, "One great advantage of being a teacher is the inspiration that results from the association with youth." No wonder Bill stays young!

F. A. Hannah writes from New York: "We all had a great time at the New York Dinner. Those present from '95 were: Sid Clapp, Henry Coddington, Fred Cutter, Ben Donham, Al Drake, Fred Hannah, Gerard Matthes, Johnny Moore, Franklin Park, Frank Schmitz, Dick Sheridan, Bill Swift, J. W. Thomas, and Johnny Wolfe. The ladies of '95 were: Mrs. Moore, Mrs. Swift, Mrs. Wolfe, and Miss Wolfe. The ladies were seated with the men and a most enjoyable reunion followed. This is the way to have a real reunion."

Gerard Matthes has left the Fairchild Corporation and is opening a consulting office in New York where he will handle aërial mapping work. Large units are now taking up this problem, such as states and entire countries, which involves more engineering possibilities than the Fairchild Company can handle.

Ernest J. Loring, native of Somerville, Mass., died at Washington, D. C. We quote from the Boston *Transcript* of January 20: "Ernest J. Loring, who died . . . of pneumonia . . . had been ill since Christmas. He was a graduate of the Massachusetts Institute of Technology, in the Class of 1895. For the past five years he has been in Washington, connected with the experimental division of the Ordnance Department of the Army. During the World War he served with the Ordnance Department as captain. While residing in Somerville he was a member of the Central Club and John Abbot Lodge of Masons. In Washington he was a member of the Cosmos Club.

"Mr. Loring is survived by his wife, who was Miss Martha Hale of Somerville, and a son; also his mother, Mrs. Sarah F. Loring of 1568 Commonwealth Avenue, Boston; two sisters, Miss Marjorie Loring, a teacher in the Brighton High School, and Mrs. W. E. Barton of Lexington; and a brother, Ralph Loring of Pasadena, Calif." We all mourn the loss of this beloved mate. We extend our sincere sympathy and condolence to his bereaved family.

The Class plans to hold its Annual Dinner at the Walker Memorial, Wednesday, March 3, and its transactions will be broadcast later.

Spring will soon be here when all nature will awake and put on a smile. Come on, men, wake up too and send your Secretary a little message. The boys will like to hear from you.

LUTHER K. YODER, *Secretary*,
Chandler Machine Company, Ayer, Mass.

'96

Replies to the questionnaires regarding our Thirtieth Anniversary celebration next June have been coming in and the sentiment of the Class appears to be in favor of holding our Reunion June 17 to 20 inclusive, and Osterville has the preference over any other place. Since the appearance of the last Review it has been definitely settled that we cannot have the privilege of the Wianno Club, and, therefore, the East Bay Lodge at Osterville has been engaged. There is promise that a good number of men will be present. In addition to a lot of those who have come to past reunions several other men have indicated that they plan to attend, such as Jim Smyser, Harry Dyer, Lou Morse, Lewis Cannon, Al Drum, W. L. Sjostrom, LeBaron Russell, Harry Tozier, Steve Gage and George Burgess. It also looks now as if we would have a stag party, as in the past, since the majority of replies to date are in favor of not including any ladies.

At the Alumni dinner in the Chamber of Commerce Building in Boston on January 9, Jim Driscoll, Hatch, Hultman, Maclachlan, Mansfield and the Secretary were present. Rockwell had planned to attend but, unfortunately, had to make a trip to New York. — Hatch reported that his rheumatism was not troubling him so much since he had had his tonsils removed, but it has not entirely left him and as a result he still has an excuse for a periodical vacation trip to Hot Springs. — Andy Maclachlan has apparently contracted the traveling habit and he may develop into a globe trotter like M. L. Fuller. Mac expects to leave shortly for an extended trip to the West Indies with Mrs. Mac. Three of their sons are already married and the engagement of the last one has been announced. Mac did not offer any explanation of why his journeys included foreign countries and why he did not heed the slogan to "see America first." The only alibi he furnished was that he found that Mrs. Mac enjoyed traveling.

M. L. Fuller has returned from his South American trip and supplied a report of it. It sounds very interesting, although as a matter of fact he states that it was not nearly as enjoyable as some of his previous trips. His letter follows:

"I carried out my intention of visiting the Bolivian frontier, as I wrote you, from Porto Velho (San Antonio) at the head of navigation on the Madeira River. This trip of 230 miles is made by railroads finished by American engineers some fifteen years ago, after fifty years of futile attempts and failures during which the loss of life as a result

1896 Continued

of fever and tropical diseases was tremendous. It runs through unbroken jungle, and, although operating only one train a week, serves to transport rubber and supplies around the long series of rapids over granite ledges which interrupts river communication between the lower Madeira and the navigable streams reaching nearly to the base of the Andes in Bolivia.

"I had no passport for entering Bolivia, but fortunately saw neither customs or other officials at the border. One hires an Indian to row him across the river, and that is all there is to it.

"At Porto Velho, on our return, we saw much of C. B. de Menezes, a Brazilian who was at Technology about 1916 [Cicero de Menezes, '16] and who is now in the railroad offices. His wife is a Stoneham girl. There are also several American and British railway officials, to say nothing of American T. T. T.'s (Typical Tropical Tramps) who have been mixed up with various revolts from Nicaragua to Chile.

"It is still a fever-stricken district, although no individual settlement will admit it. It is always the other village which is unhealthy. Nevertheless, I failed to meet any individual who had not at some time experienced an attack. The Americans and Europeans, however, are provided with screened porches of the Panama type and seem to stand the climate very well.

"Of tropical life one sees comparatively little from boat or railroad. Parrakeets, parrots and macaws are, it is true, common everywhere, and an occasional alligator is seen, but monkeys, jaguars, tapirs, and so on kept discreetly hidden in the forests. We did see the Indians hunting turtles with bow and arrow. Porpoises ascend the Amazon and tributaries from the sea to the headwaters in Bolivia and Peru.

"The striking features of the trip were the enormous size of the Amazon and the immensity of the area of forest. The river immediately above the estuary is often twenty-five miles or more in width and is still from one to two miles broad 1,000 miles above its mouth. The volume is four to five times that of the Mississippi, and its yellow flood reaches far out to sea, where, at times, fresh water can be obtained by vessels out of sight of land. Large ocean vessels can ascend at least 2,000 miles.

"The forest, unbroken except for an occasional small village and the single city of Manaos reaches 2,500 miles from the Atlantic to the Andes and 1,200 miles from the Guiana highlands to Central Matto Gusso of South Brazil. Day after day and even week after week, as one ascends the rivers, the banks present the same dense green wall, brightened here and there by a patch of color where some tree is in blossom, or broken by the dome or umbrella-like tops of some tropical giant towering above the rest of the forest. Rubber and Brazil-nut trees are among the best known.

"We did not suffer from insects to any extent. Ants of dozens of varieties are found, some building conical mounds of clay higher than a man and others constructing nests, connected by clay tunnels with the ground, high in the branches of the great trees. Butterflies of many varieties were seen but except for a migration of a yellow species streaming southward across the Amazon for days the numbers of any single type were small. Beautiful blue varieties were noted on the upper Madeira. Mosquitoes, strangely enough, were troublesome only in the city of Para, nets being elsewhere unnecessary. We had a smooth trip home by the way of Barbados, arriving January 5. I am planning to remain in New York until April to finish some reports on my China explorations."

An additional side light on his trip was a New Year's card to Frank Hersey from San Antonio, Brazil, where, after ascending the Amazon and Madeira for 1,500 miles the Fullers celebrated Thanksgiving Day by a dinner of native food eaten at 100 degrees F. in a little village at the falls, 300 miles from the Bolivian frontier.

Through Perl Underhill word has been received of the death of Joe Franklin which occurred in Los Angeles, California, December 30, being caused by asphyxiation due to the burner of a gas heater being left partly open. Joe was a very likeable chap but had not kept in close touch with the Class for a considerable period. After leaving Technology he was President of the Commercial Electric Supply Company of St. Louis, but sold out about 1901 and went to New York in the bond brokerage business which did not turn out very satisfactorily so that in recent years he has been in the real estate business in Los Angeles. He was buried at his old home at Kirkwood, Mo., a suburb of St. Louis. Franklin was married first in 1897 to Laura Young of Louisville, Ky., who later died, and in 1913 to Agnes Lewis of Fayette, Mo., who survives him. There were no children.

The Secretary also regrets to report the death of Len Cotton which occurred March 31, 1925. Even as far back as his student days his lungs were not strong, but he seemed to have overcome this trouble until recently. He was born in Chelsea, September 21, 1874, the son of Charles L. and Esther Miller. He married Miss Helen L. Paternande at Montgomery, Vt., June 21, 1903. Besides his widow he is survived by three children. He practically always engaged in business for himself and for a long time dealt in automobile bodies and trailers, having a place of business on Commonwealth Avenue, Boston.

Through Con Young has come word of the appointment of Abram Garfield of Cleveland to the membership of the Fine Arts Commission. Garfield was with the Class two years as a student in the Architectural Department. The Washington *Post* of June 7 contains a report of the meeting of this Fine Arts Commission and the National Capital Park Commission for the purpose of planning a gateway from Virginia into Washington. This meeting Garfield attended as his first job on the commission. It will be recalled that he is a son of President Garfield.

Herman Hormel has received the reappointment by President Coolidge to be Surveyor of the Port of Boston. He had made an exceptionally competent Surveyor during the previous term and supervised the details of his office work with fidelity so that he received strong endorsement of both of the Massachusetts senators. It will be recalled that during his last term he took a course of law and was admitted to the Massachusetts bar.

We have lost track of Justin Campbell, whose last address was in Cleveland. Can any classmate supply a clue as to his present whereabouts?

Report has come that J. H. Houghton is no longer with the Union Bag and Paper Corporation at Hudson Falls, N. Y., but is now at 680 Summit Avenue, Westfield, N. J.

Irv Merrell has not been recovering from his severe illness of last year as rapidly as he had hoped and even now is able to work for only a short time each day. He has, therefore, come to the conclusion that he had better quit trying and will leave shortly for California for a three months' trip to devote himself entirely to the recovery of his health. With him go the best wishes of every classmate.

CHARLES E. LOCKE, *Secretary*,
Room 8–109, M. I. T., Cambridge, Mass.
JOHN A. ROCKWELL, *Assistant Secretary*,
24 Garden St., Cambridge, Mass.

'98

Roy Peavey was guest of honor at the annual banquet of *The Tech Engineering News* and we understand that his after-dinner speech was greatly appreciated by the boys. Roy is now President of the Babson Statistical Organization, Babson himself being Chairman of the Board. Roger is at Babson Park, Fla., for the winter.

Jack Goddard was on for a visit last spring, one of the objects being to arrange to prepare his two boys to enter Technology. He was looking just as he did twenty or more years ago when we last saw him. He is located at Torreon, Mexico, where he is superintendent of the smelter.

A letter was recently received from Dan Edgerly at St. Louis under the letterhead of the Titanium Pigment Company, Inc. Edgerly has been identified for some few years with the important commercial development of titanium compounds as pigment for paints. This is an abundant material in nature but until recently it has been little known or utilized.

Hurter dropped in a few days ago. He is still on the same job with the du Pont Powder people but he has a new assignment, namely, a two-year explosive survey in the Lake Superior iron region. He will have to spend most of this time in mining camps, only occasionally getting out into civilization.

We have just received the sad news of the death of James C. Walker, Course VI, on August 18, 1925.

ARTHUR A. BLANCHARD, *Secretary*,
Room 4–160, M. I. T., Cambridge, Mass.

'00

The Annual Dinner of the Alumni Association gave the local men another chance to get together, with the result that Allen, Bowditch, Bugbee, Cotting, Ingalls, McCrudden, Neall, Patch, Perry, Russell, Silverman and Zeigler sat down to two tables and had a mighty nice time. Our tables seem each year to work themselves nearer the head table, and the long string of tables behind us grows more noticeable. In spite of this we can't seem to figure it out that we are any older and even faces do not seem to change greatly. May we ever stay young in thought and spirit, and each year may more of the old faces come to grace these happy occasions!

Every time your Secretary runs across one of the fellows whom we have temporarily lost sight of during the past, he gets a real kick out of his job. The other day a letter came in from Charles H. Comey divulging the fact that he was in Boston and anxious to get in touch with the fellows again. Comey has been in the printing business most of the time since graduating and now is associated with Guy T. Mitchell Company, manufacturers and distributers of accounting supplies, with offices at 225 Atlantic Avenue. His name at once goes on the "local list" and we look forward to seeing him at our next informal dinner.

In the last Review we promised to let in a little light on the dark past of Rawson Collier who played the part of genial host during our recent Atlanta trip. Perhaps it is a rather poor return to make for such generous hospitality, but the Class ought to know what its shining lights are doing. It is one sure way to make us proud of our Class, individually and collectively.

Collier returned to Atlanta immediately after satisfying his craving for knowledge of things electrical, and lost no time in breaking into the game. The late fall of 1900 saw his name and that of Steve Brown linked together on a shingle that waved to and fro high above Atlanta's streets. For four and a half years they designed and built municipal plants all through the South, their work covering waterworks, sewerage systems, electric light plants and hydro-electric developments. Brown was obliged to return North and Collier closed out the business and became manager of the B. and R. Electric Company of Atlanta. Six months later he resigned this position to become associated with the Georgia Railway and Electric Company as engineer in charge of the redesign and rebuilding of the steam plants of the Company and the electrical work on the Atlanta-Marietta Interurban Railway. A few years later he became general sales manager for the Georgia Railway and Power Company, handling all electric, gas and merchandise sales in the territory. In 1920 he was promoted to sales and operating manager of the company, which position he held until 1922 when he became general manager of the Central Hudson System, Poughkeepsie, New York. Since November, 1923, he has been in charge of the southern office of Dwight P. Robinson and Company of New York, well-known contractors for high-class building construction. The office covers the entire South from Virginia to Texas.

During the war Collier was the Southern Representative of the Priority Committee War Industries Board, in charge of allocation of power to essential industries. In 1919 he was connected with the Fuel Administration charged with supply of fuel to all central stations in the Southern District from Virginia to Louisiana. Not only does he seem to be a bear for work, but he finds time to hunt, fish and coddle a young radio plant. Look him up when within a few hundred miles of him for you will surely be repaid for the effort. He's a real 1900 whizz and another honor to the Class.

GEORGE E. RUSSELL, *Secretary*,
Room 1–272, M. I. T., Cambridge, Mass.

'01

A meeting of the Class Committee was held on Wednesday, January 20, at which were present Leonard Chandler, St. Clair, McGann, Allen, Ted Brigham, and the little stranger, Norman DuBois, as well as the Secretary. A preliminary report was made on the first circular letter which showed thirty-two members of the Class already signed up, about as many more in the doubtful group, the certainty of eight or ten more Boston men, a probable twenty-five from New York, and Chicago not heard from. To put the probable attendance at seventy-five is to underestimate present indications. A number of hotels and country clubs were discussed and of this number an appreciable percentage discarded. John McGann, who seemingly has led a nomadic life, was able to give critical first-hand information on the cuisine of every place suggested. It is a tribute to his discriminating palate that where his judgment could be checked by other members of the Committee there was a complete unanimity of opinion. The Class has contained several gourmands in the past and now blossoms forth with one established gourmet. Those who enjoy social as well as official contact with Charles Henri Louis Napoleon Bernard will appreciate this subtle difference. All others can derive the information from their growing children. Such hostelries as received John's grudging approbation will be circularized, and in another month a final meeting will be held and a selection made. After that will come the broadside conveying all detailed information. (The writer expresses his profound sense of obligation to the Editors of The Review for this gratuitous advertising.)

1901 Continued

Turning to the short and simple flannels of the poor, as the late Ralph Waldo Emerson so wittily expressed it — or was it H. G. Wells,* he wears them — we find that Ted Brigham, who has been with the New England Confectionery Company since graduation, is plant engineer for the corporation with a wide variety of duties and responsibilities. Ted strips to his weight in college, dances, indulges in fancy skating, climbs mountains, and plays golf. As a student of metabolism I wonder if Edward's constant association with carbohydrates in plethora provides the extra energy necessary for these strenuous pastimes. Ted has four children, two boys and two girls; the oldest fifteen and the youngest three. He welcomes the opportunity of participating in the Reunion and is one of those upon whom we may definitely count. I trust that it is understood that there is no implied sequence in items of information furnished about members of the Class.

Ellis Lawrence writes from Portland, Ore., where he is still in partnership with Billy Holford practicing architecture and serving as Dean of the Architectural School at the State University. Ellis was in the East last summer but had a neuritis — cause not stated — which prevented his attending the Reunion. He is going to make an effort to get over for the Reunion this year. Bill Holford, I understand, has undertaken to entertain the neuritis. Ellis has three boys, one now in the University of Oregon *en route*, or, as the French say "on his way" to Tech. The second boy enters Andover next year which is a sound reason for Ellis to bring him east in time to participate in the Reunion. The youngest boy is still in school. Ellis ends with a few well-chosen words in which he repeats Horace Greeley's advice to young men and offers a modest statement detailing certain of the advantages accruing thereunto.

E. F. Church writes with a pessimism foreign to his gentle nature that his job at present consists in trying to get young men to pick up, in between the times they are really working at college activities, enough knowledge of how things should not be done to keep them from losing too many jobs. This bit of Shavian philosophy is offered to other teachers in the Class. He also reports that Harry White is with the American Tel. and Tel. and Carl Rossmassler — to be in nowise confused with Young Ross Redsucker in spite of superficial similarity in cognomen — is at the Cooper Institute. Church is doubtful of his ability to sit in at the Reunion this year as it will probably come at a time when decked in full academic splendor he is assisting the institution to free itself from some of the young men mentioned above. I should have said in passing that he is at the Brooklyn Polytech.

Willard Dow, true to Technology tradition, has become a certified public accountant and from his lofty eminence of financial omniscience says vain things from time to time about my simple methods of bookkeeping. I acknowledge the force of his criticism and have invited him to audit the accounts for the present year. I shall then publish the statement in full including a careful reproduction of the seal and the beautiful floating ribbons with which all such documents are embellished. The introduction of an aesthetic note into the humdrum affairs of the business world has always seemed to me a touch of sentiment to be lauded and perpetuated.

Arsem, who went to the General Electric on graduation and was for many years identified with the research department, is now acting as an independent research and consulting engineer in an advisory capacity to directors of research and supervisors of development. His work covers a wide range and is the logical development of the important contributions to both pure and applied science which were made by him while on the staff of the G. E. Arsem has two children, one six and one two. He writes me that he has just taken his first vacation in four years and is planning to take another at the time of the Reunion.

J. L. Putnam, who will also attend the Reunion, is mechanical superintendent of the Waterbury Clock and Ingersoll Watch Company. He is Chairman of the local section of the A. S. M. E. and in his professional activity has unquestionably aided every member of the Class. As I have already stated, this public benefactor will attend the Reunion and give us all an opportunity to express our appreciation for the yeoman service he has performed on our behalf. Apparently an era of prosperity is upon us as I have no record of changed addresses to offer.

ALLAN WINTER ROWE, *Secretary*,
4 Newbury St., Boston, Mass.
V. F. HOLMES, *Assistant Secretary*,
131 State St., Boston, Mass.

*It was Franklin P. Adams, in The Conning Tower. — THE EDITORS.

'02

Samuel C. Lind has recently been awarded the Nichols Medal for 1925 by the American Chemical Society. Lind is associate director of the Fixed Nitrogen Research Laboratory at Washington. Whether this position supersedes that of Chief Chemist of the Bureau of Mines which Lind has held for three years past or is in addition thereunto we have not yet learned. — William N. Brown is salesman for the De La Vergne Machine Company of 910 East 138th Street, New York City. Brown's particular job is with the Diesel marine engine. He tells us that the De La Vergne Company is affiliated with the Cramp Company, the well known ship builders of Philadelphia. Brown is living at 85 St. Andrews Place, Yonkers, N. Y. — Chauncey Manning is with the Royal Typewriter Company of Hartford, Conn. — Alberto Madero is no longer to be reached at the last address we have for him, viz., First National Bank Building, El Paso, Texas. Any one knowing of his whereabouts will kindly report.

Mahar has been appointed by the School Committee of the City of Boston to the newly created post of Domestic Engineer. Jim's job is to produce the highest efficiency in the running of the 280 school buildings in the city. With a fuel consumption of 35,000 tons of coal and 1,000,000 gallons of oil per annum in the several buildings, Jim has quite a chance to earn the $4,000 salary which goes with the job. — Bill Kellogg is President of the Engineers Public Service Company and also of the General Public Service Company, both at 120 Broadway, New York. Bill tells us that this change of titles does not separate him from the Stone and Webster interests with which he has been connected these many years. — Montgomery's only daughter, Eleanor, was married on January 5 to Philip P. Parkinson of Newark, N. J. Eagar, Lewis and Harold Pope all have daughters married, but these three classmates all jumped their bail before our term at Technology was up and married while most of us were still plugging at our books. As far as we have heard the young Mrs. Parkinson is the first daughter of an honest-to-goodness graduate to marry.

Monte also tells us that he has discontinued operating as Frank P. Montgomery and Company and continues his insurance work under the name of O'Gorman and Day with offices at 130 William Street, New York, 15 Clinton Street, Newark and 921 Bergen Avenue, Jersey City. As Monte has been a member of this firm for the past five years this move is more a rearrangement of detail than a real change.

At the Annual Dinner of the Alumni at the Chamber of Commerce, Boston, on January 9, ten classmates assembled, namely: Bassett, Hunter, Moore, Patch, Pendergast, Philbrick, Robinson, Grant Taylor, Thurston, and Doc Williams. Murray Walker had planned to come but business matters called him to Florida a couple of days before.

At the smoker held in Walker Memorial at the same time as the Phantom Radio Dinner in New York, Bert Haskell, Pendergast and Hunter represented the Class, making up a table with acquaintances of '00 and '01. The informal concert given by the Musical Clubs and other student organizations which preceded the radio features was much enjoyed but the attempt to "loudspeaker" the broadcast in the large hall was not entirely successful and only parts of the program were understandable: the difficulty was more often too much than too little sound. No report as to the New York classmates who attended the central dinner has yet come in.

With the issue of *The Retort* which went out early in January a return card was sent to those classmates who might perhaps have a son or daughter in college. Cards already back list nine daughters and twelve sons in various schools from New Hampshire to California. Two colleges at least, Harvard and Dartmouth, have more of our sons than the Institute. The list will be duly published when more returns are in and we find who sent the unsigned card as to Chicago University not stating whether it was a son or a daughter there.

Word has been received of the death of Miss Barbour Bruce of Louisville, Ky. Miss Bruce took special work with Course IX during our senior year but was not widely acquainted throughout the Class. She has been a teacher in Kentucky and Virginia. For the past three years she has been in Louisville.

Homer Eugene Bartlett — Dimmy as he was affectionately known by his Course IV friends, — died suddenly of heart failure on the evening of January 4 while calling on friends near his home in Huntington Park, Calif. Handicapped by a critical illness in his childhood which lost him the sight of one eye and left him an invalid for most of his boyhood he never developed into a robust man physically. His constant good cheer and his quiet determination to carry on in spite of his misfortunes won him the warm regard of his fellows. A clever draughtsman, Dimmy saw considerable of the world. He worked in New York, Washington, Baltimore, Boston and then again for several years in New York. In 1907 he went abroad for a year, traveling extensively in Europe and spending some months in study in Paris. In 1912 he took a position as architect with the Panama Railroad at Colon, Canal Zone. While at the Isthmus he designed stations at Panama and other points. In 1919 Bartlett married Miss Annie Pierce of North Andover, Mass., and with his bride drove across the country to Los Angeles where they have since made their home. He had been for several years associated with the firm of Allison and Allison of that city and has resided at Huntington Park. He is survived by his widow, his aged mother and a brother, George M. Bartlett, '05.

FREDERICK H. HUNTER, *Secretary*,
Box 11, West Roxbury, Mass.
BURTON G. PHILBRICK, *Assistant Secretary*,
276 Stuart Street, Boston, Mass.

'04

Quoting from the immortal bard of Avon (Street), Honorable William Bacon or Francis Shakespeare, as the reader may prefer, "Now is the winter of our discontent made glorious" by the fact that we have quite a reasonable amount of notes for this issue.

It will be remembered that in a previous issue was chronicled the

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fact that Bob Dennie had gone to Florida. Under date of November 25 he wrote Gus Munster and Gus has very kindly turned over to the Secretary a portion of Bob's letter: "Well, you old golf hound, how is everything by you this cold weather and how would you like to be down here with me chasing the elusive pill around this green grass and under the palm trees? I tell you, old top, this is the country for this time of year. We left dear old Massachusetts in our trusty Flint on the morning of September 21 and had a very fine trip down here covering 1,690 miles in seven days. Other than having to change one tire, we had no trouble and the roads for the most part were very good, although through the Carolinas and Georgia it was terribly dusty.

"To tell you the truth I think this is the most uninteresting land I have ever seen although it has its pretty sections and, of course, the orange trees loaded with fruit is a sight worth seeing. This city is sure in for a great expansion. From a city of 50,000 a year ago it will now go well over 100,000 and there are thousands of newcomers every week from all walks of life and from every State in the union. Building activity is marvelous and the sky line is beginning to rival that of old New York, but unless the transportation companies can find a way to handle their traffic and lift the embargoes it will be a serious setback. There are hundreds of apartment houses and small homes under construction but no material to finish them and it is estimated that there are at least 20,000 people right here in Tampa without a roof over their heads. They are camping under tents in the tourist camps.

"While I have found no gold dollars hanging from the bushes, I have been able in these two months to make a little more money than I ever made before in the same length of time and if I can make enough so that I can turn around and invest in some of this property, believe me, boy, I am going to make some money and be on hand for the 1927 '04 Reunion even if I cannot get there next year. . . . We are spending most of our time on business and apartment house sites as such investments turn over very rapidly and, of course, run into more money than house lots. . . . Should any of your friends be interested in making a little easy money have them get in touch with me. If a few of you fellows have a little money which is earning less than fifty per cent just form a little syndicate, tell me how much you have and I will do the rest."

Although this column of The Review is not an advertising medium, we often make a note of changes in addresses. Bob's new address is care of Swann and Company, Tampa, Fla. The Secretary doesn't care to go further with this matter, although he sincerely hopes that Bob will make a huge success of his efforts to dispose of Florida real estate.

Earle Cunningham was very ill during the month of January, having suffered from a very severe attack of blood poisoning. As these notes are written at the latter end of the month, the report is that he is convalescing and making satisfactory progress towards health so that by the time the Review meets the public eye we expect that Earle will have entirely recovered.

Carle R. Hayward has been elected Chairman of the Boston section of the American Institute of Mining and Metallurgical Engineers for the year 1925–1926.

Charles W. Hoy has been located in Glassboro, N. J., since 1910 as manager of the People's Gas Company. Last September he retired, as related by the following account from the local paper: "Mr. Hoy has resigned after being manager of the gas company here since 1910. He will engage in the development of small gas companies in which he has had considerable success. The present system here represents a merger of small gas companies and now serves many towns and villages in Gloucester county and in sections of Salem, Cumberland and Camden counties.

"Mr. Hoy was born in Troy, June 22, 1877. He attended the Massachusetts Institute of Technology where he graduated with a degree of bachelor of science in chemical engineering. He also attended the University of Pennsylvania School of Commerce and Finance.

"He has been connected with such firms as the Solvay Process and Sement Solvay Company, of Syracuse; the Hartford Gas Light Company, Hartford, Conn.; The Queensboro Gas and Electric Company, Far Rockaway; The Consumers Gas Company of Atlantic City. In 1910 he affiliated himself as manager with the New Jersey Gas Company at Glassboro. He acted as general manager of this concern until appointed receiver in 1921. Early in 1922 Mr. Hoy became general manager of the New Jersey Gas Corporation, serving until August of the same year, when it was taken over by the People's Gas Company, of which he continued as manager up to the present time."

The next item is one which is not so pleasant to relate as it is an

1904 Continued

item of misfortune. Roy E. Dimock had the misfortune recently to lose his house and all its contents by fire. This happened in Orangdale, Nova Scotia, where Dimock has been living for the past few years enjoying country life. The Secretary extends to him the sympathy of the Class in his period of hard luck.

During the fall of 1924 G. C. Riddell made a trip to England and the Continent and on his return opened new offices at 1 Broadway, New York City. He still retains his residence in Washington, D. C., where the Alaska-Pacific Coal Company has its headquarters. Before going to Europe he made an inspection trip of the field operations of the S. T. V. Company in California, Utah and Wyoming. At Santa Maria, Calif., petroleum from the earth shale deposits is being produced commercially and is marketed as fuel oil and as flotation oil in South America, Alaska and the United States. The original plant which has been in operation for three years is now being quadrupled in size. The Secretary doesn't know the name of the company to which the mystic initials refer and not being a mining engineer is rather uncertain as to what "flotation oil" may be.

As we are now approaching the end of this chapter of class notes, it is not surprising that the last item should be about one of our members whose name is almost if not the very last in the class list. This is Edgar Everett Yeaton, a life-long resident of the city of Lynn. Yeaton received his education in the public schools of Lynn, graduating from the Lynn English High School, and then entered the Institute. After leaving Technology he decided he would follow his natural bent and turned to journalism in which he has been active since. He is one of the best known newspapermen in Lynn, having covered the police assignment for fifteen years. He has gained an insight into city government and politics doing the City Hall beat for several years. He also is local correspondent for the Associated Press and a Boston newspaper.

During the World War he was active in welfare work. He was Secretary of the War Garden Committee of Lynn, and organized a committee of fifty men, who secured 500 garden plots where hundreds of workingmen and their families tilled the soil. He also served in the Intelligence Division of the Department of Justice. Yeaton has been active in civic, fraternal and patriotic organizations. His work in connection with the Greater Lynn Fair, of which he was Secretary for two years, was noteworthy, for those two years were the most prosperous in the history of that organization, the Fair clearing itself of debt as a result of his valuable suggestions.

The Secretary feels very well satisfied with the results of his efforts to provide the readers of this periodic with some news of his classmates. Those who have read these notes regularly will doubtless remember his impassioned appeals for copy. In order to render unto those who have assisted the Secretary in preparing this current issue, he hereby tenders his devout thanks to the Clipping Bureau employed by The Technology Review, as it was from that source that the majority of these items were received. This statement is made in order that those who read may be aware of the fact that the Secretary's classmates are just as useful to him as ever.

For your information the Annual Class Reunion will be held some time between June 1 and 30, 1926. The location of the meeting place will not be divulged here other than to state that it will be east of the Hudson River, west of the Atlantic Ocean, and near a large golf club. It is earnestly hoped that a good many will attend the Reunion.

The Secretary wishes to thank all his readers for the time spent in wading through these notes and to assure them that he has had as much enjoyment preparing them as they have had in reading them.

HENRY W. STEVENS, *Secretary*,
12 Garrison St., Chestnut Hill, Mass.
AMASA M. HOLCOMBE, *Assistant Secretary*,
3305 18th St., N. W., Washington, D. C.

'05

Once in a while you will read, under some class heading that no notes have been received by the Review Editors. There always follows the laconic sentence "The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office." Every time we see that we laugh and if we ever see it in the '05 column, we shall laugh harder. It sounds so helpful. Fact is, we haven't received any "such news" for so long we can hardly be certain we ever did. As a matter of fact, we get what we get when we get it.*

This applies equally well to letters from all of you. And so, when a rare bird like the following flies in the window, our eyes grow misty as we read: "For some years now I have been enjoying — in silence — the '05 notes in The Technology Review, and am only breaking this silence now because I happened to notice that our Class is included in the list of classes whose secretaries guarantee monthly notes; and you may save this note about the writer until some month when notes are scarce, if you desire.

"For a number of years now I have been in the U. S. Coast and Geodetic Survey, at present with the rank of Lieutenant Commander, engaging principally in its hydrographic work in various parts of the United States and its possessions. For about a year now I have had command of the U. S. S. *Pioneer* of this service, last summer being engaged in charting the coast, and waters off the coast of Southwestern Alaska, out at the end of the Alaska Peninsula. During the present winter we are engaged in similar work in Southern California, with headquarters at San Pedro (Mrs. Luce and I are living at the Blackstone Hotel, Long Beach, Calif.), and hope that if any classmates stroll this far from Boston, they will look me up. Robert F. Luce." Thanks, Bob.

We are glad to see in the January Review some illustrations of Howard Edmunds' Cameograph process of mechanical photo-sculpture to which he has been devoting his time for some years.

What did we say about Senator Couzens' committee and Lovell Parker who investigated the Internal Revenue Bureau? Here they are with a report claiming that the Government has lost $1,000,000,000 not counting Parker's salary.

The Review devoted a whole column to an account of an investigation of "Margery" by a Technology chemical engineer who found her unreliable. It is not clear why a chemical engineer should have been chosen to undertake this work but any '05 man would give her a "C" after her very successful demonstration in *The '05 Flivver*.

* Items of major importance about Technology men appear in The Past Month section of The Review instead of being sent to the Class Secretary for inclusion under News from the Classes. News about '05 men has appeared in The Past Month section on recent occasions: H. Edmunds, January, 1926, page 140; H. H. W. Keith, November, 1925, page 12; W. K. Lewis, July, 1925, page 434; G. D'W. Marcy, May, 1925, page 357; R. O. Marsh, April, 1925, page 295; E. W. Washburn, February, 1925, page 174; and so on. Readers of Mr. Davis' paragraph are referred to thesecond from the last paragraph in the notes from 1904 on this page. — THE EDITORS.

1905 Continued

We are more than pleased to hear that at least one member of the Class participated in the great Phantom Radio Dinner when 25,000 alumni at seventy-six** dinners heard read a telegram from John Douglas, Marquette University, Milwaukee.

Doc Lewis has received enough publicity so we won't mention the fact that he addressed the Technology Club of New Bedford with movie accompaniment.

After our opening paragraph, we are quite nonplussed by the receipt of a news item from the Review Editors, the first in many moons, a yellow slip measuring just five-eighths inches by eight and one-quarter inches, on which is typed "H. A. Wentworth, '05, who made a trip to London in December in connection with the development of his gold properties in Manitoba was in Boston only a few days before he set out for Manitoba to visit the mines." Thanks, Editors, but it's not so.*** Instead of crossing the Atlantic to London, he crossed the Niagara River to London, Ontario, where he always checks his store clothes when he starts his hike for King Soloman's Mines.

ROSWELL DAVIS, *Secretary*,
Wes Station, Middletown, Conn.
S. T. STRICKLAND, *Assistant Secretary*,
20 Newbury St., Boston, Mass.

'06

Four of the Boston members of the Class assembled at the City Club on Tuesday, January 19, to take dinner with Harold Coes. The party was very impromptu and the result of some last minute telephone calls. Those present were Charlie Mowry, Ralph Clark, the two Secretaries, and Harold. A most pleasing time was had. Right here let us state that any time any '06 man is in Boston, if he will only call the Secretary the latter will do what he can to arrange a similar party.

Harold Coes is now Vice-President and General Manager of the Belden Manufacturing Company, Chicago. He reminded us that his latchstring is out for any '06 man who happens to be in Chicago.

After the dinner, Charles Mowry and the two Secretaries went over to the Walker Memorial to sit in on the Phantom Dinner. The doings in New York were picked up on a radio receiving set and transmitted to the undergraduates and Alumni at the Walker Memorial Smoker by means of loud speakers. The members of the Class enjoyed the musical program furnished by the undergraduates. They certainly have some good musical clubs at the Institute this year. We recommend that any '06 men who can possibly attend any of their concerts will be repaid for so doing. The day after the dinner the Secretary learned that Stewart Coey was in town. Stewart gets to Boston every two or three weeks.

Harold Coes reported having seen Gene Chase in Altoona, Penna., in October. Chase is electrical engineer with the Pennsylvania Railroad. Harold also said he heard that Tony Mathesius was in Florida.

Clifford R. Wilfley, III, of Ouray, Colo., has been appointed consulting engineer of the Ophir Bond Holders Committee, operating the Silver Bell Mine at Ophir, Colo.

The Secretary acknowledges the receipt of a postcard from Henry Ginsburg, mailed in Miami, January 18. Henry noted that he had driven down in the machine with good roads practically all the way and was having real summer weather.

Bob Doepke is now President of the Alms and Doepke Company and has recently been elected a director of the Cincinnati Chamber of Commerce. On December 15, H. E. Darling was promoted to general traffic manager of the New England Telephone and Telegraph Company. Darling was moved up from the office of general supervisor of traffic.

Sam Nash wrote us a letter a while ago and added this postscript: "Rah! for next year's Reunion; I hope both members of the Class will be there." The significance of this is not quite plain to the Secretary, but if the other members of the Class show as much interest in reunions as Sam has, this year should be a record breaker.

J. W. KIDDER, *Secretary*,
8 Harrison Ave., Boston, Mass.
EDWARD B. ROWE, *Assistant Secretary*,
11 Cushing Ave., Wellesley Hills, Mass.

** Said the official transcript of the remarks of L. D. Gardner, '98, Chairman of the dinner committee: "First let me tell you the extent of this unique affair. Dinners are being held in *sixty-seven* cities . . . all listening to the program."—THE EDITORS.

*** Mr. Wentworth did go to London, England. He sailed December 2 on the R. M. S. *Aquitania*, returned December 15 on the S. S. *Leviathan*. Mr. Wentworth has himself confirmed this report.—THE EDITORS.

'07

Laurie Allen has left Manchester, N. H., and the shoe business and is living at 112 Federal Street, Salem, Mass. We are not able to give particulars about his change of location and occupation now, but hope to do so in the next Review.—Cecil F. Baker has left the University of Cincinnati, and is to be found at 558 Willow Road, Winnetka, Ill. We'll try to have further news about him next month.—A change of address has been received from Vernon S. Rood, who gives his present location as 166 Park Avenue, Saranac Lake, N. Y. This is some shift from Bingham Canyon, Utah, but further facts are lacking now.

Your Secretary has scratched his head and chewed his pencil while sitting at his desk at his home on this Sunday evening, January 24, trying to think of some news of interest regarding other Sevenites, but all in vain; so for this issue he'll have to call it done as this batch must be in the hands of the Editors by January 25.

BRYANT NICHOLS, *Secretary*,
2 Rowe Street, Auburndale, Mass.
HAROLD S. WONSON, *Assistant Secretary*,
W. H. McElwain Co., Manchester, N. H.

'08

We are beholden to Beede for a very enjoyable evening on October 20 when he told us about his recent travels in the West, South and North. The occasion was the first bimonthly dinner of the fall and winter season, and was attended by the following: Beede, Davis, Toot Ellis, Carey, Cook, Bangs, Hatch, Newhall, Cole, Appleton, Mayo, Carter. Beede went with the Shrine on their last trip to the Coast and brought back some very interesting photographs and anecdotes of the country people. Following this trip he went with the Ancients on their trip to Havana, and his description of this trip was very interesting. Later on he took a motor trip to the Gaspé Peninsula and here again his description of the country and people, accompanied by excellent photographs, was certainly well worth listening to.

On December 8 the following were present at the second bimonthly dinner: Carey, Newhall, Davis, Appleton, Gurney, Wells, Tim Collins, Gerrish, Heath, Hale, Cook, Carter.

The following represented the Class at the annual Alumni Banquet January 9: Collins, Hale, Newhall, Carter.

Sewall is still in Australia, but expects to be back early in the spring.—Dick Collins is now connected with the United States Rubber Company, dividing his time between New Haven and the Revere Rubber Company plant at Chelsea.—J. B. Sando has recently become chief engineer of development of the American Laundry Machine Company, Cincinnati, Ohio.—Tim Collins has recently become associated with the Paul F. Clark Agency of the John Hancock Mutual Life Insurance Company.—We have only recently learned that Clarence Clark has a son at Tech, Adrian N. Clark, member of the Class of 1929.

We are very sorry to announce the rather sudden death of Clarence L. Hussey who died December 5. Not only has the Class lost a loyal member, but the engineering profession too is a loser, as Hussey had done a great deal for the advancement of engineering, particularly as applied to the design and construction of reinforced concrete structures, such as bridges. Since 1912 he had been Director of Bridge Construction on the Rhode Island Highway system.

The following cannot be located as the addresses we have are apparently wrong. If anybody can let us have their present correct addresses it will be appreciated: James D. Grant, Jr., care of Tennessee Coal Iron and Railroad Company, Ensley, Alabama; Chester A. Polsey, 154 Summer Street, Somerville, Mass.; Edwin C. Ball, 20 Marathon Street, Arlington, Mass.; Clement J. Dore, 40 Howland Street, Roxbury, Mass.; William B. Parker, 1019 Vallejo Street, San Francisco, Calif.; Roger F. Scannell, 700 Huntington Avenue, Boston, Mass.; Ben Hershey, 426 South C Street, Tacoma, Wash.

HAROLD L. CARTER, *Secretary*,
185 Franklin St., Boston, Mass.

'10

Professor Charles E. Locke writes us as follows: "W. B. Hargraves, '10, has finally been heard from off in Mayo in the Yukon Territory of Canada, which perhaps accounts somewhat for failure to locate him. He had hoped to return to Boston with his family for a visit last summer, but in the spring conditions arose which made it necessary for him to decide to stay at Mayo two years more before he could hope to get away. I am sure the foregoing will be of interest to many of Hargraves' classmates who have inquired of me at various times if I knew where he was."

Chet Dunlap comes to the fore with a welcome response to the appeal for letters. Hope his example proves contagious. His letter follows: "I believe I have owed you a letter for some years. Well, I've been waiting for something to happen and for six years nothing but Fourth of July and Christmas have happened each year except an occasional trip to Europe.

"Whole thing was getting so monotonous that I decided to get a move on. Result: I left the Kolynos Company and am now entered in the directory at Fulton, N. Y., as the assistant manager of the Peter Cailler Kohler Swiss Chocolate Company. The product goes down a great deal easier than the name.

"During the process of moving another addition appeared in our family by the name of Barbara Dunlap, born December 21. This makes three girls in the family. Correspondence is invited with another Technology man having three of a kind (males)—object matrimony. They will have to be three kings, though, for I'm standing pat on three queens and they'll be hard to beat.

"Went to Oswego—ten miles from here—and saw Bob Burnett. He is looking very hale and hearty and I may say publicly that as yet he has not returned my friendly call! It may be that the Carlisle and Tenney interests are making currant jam in this neighborhood and that Bob is very busy just now.

"Miss my old New Haven friends, for we certainly had a live Technology bunch there but I hope to find something in the line of a Technology Club up here. Well, have given you a line or two and my conscience is clear for at least a year. Hope to have something more to write about then. Wish Geg would give us a line on his movements lately. Have been hearing about big doings of his."

DUDLEY CLAPP, *Secretary*,
15 Draper Avenue, Arlington, Mass.
R. O. FERNANDEZ, *Assistant Secretary*,
264 West Emerson St., Melrose, Mass.

'11

Before this issue has gone to press all the members of the Class of 1911 will have received the first publicity of the Fifteen-Year Reunion Committee, Emmons J. Whitcomb, Chairman, and in the bargain let us hope that a majority of those who have received it have made preliminary plans to attend. Don't forget the calendar line-up that we have this year,—May 29-31 inclusive—gives an opportunity for a three-day Reunion with but a half day away from business.

Dick Ranger has agreed to take care of the details in connection with those who will attend from New York and vicinity, and he is of the firm conviction that there will be a big delegation. Saybrook, Conn., the scene of our Reunion, is most accessible from New York City, and it is also a delightful drive down there from any section of New England.

There were nine of us Nineteen-Eleveners at the Annual Dinner of the Alumni Association, held this year at the Boston Chamber of Commerce, on Saturday, January 9: Art Coupal, George Cummings, Bob Haslam, Jack Herlihy, Charlie McManus, Roy MacPherson, O. W. Stewart, Ed Van Tassel, and your humble scribe.

The main dinner, around which was built the All-Technology Phantom Radio Dinner on the evening of January 19, was held in the ballroom of the Waldorf-Astoria, New York City. According to The N. Y. *World* of January 20 the following ten 1911 men were present: Jim Campbell, Bill Foster, Sam Hayes, Tom Killion, Bill Martin, Dick Ranger, Don Stevens, Pete White, Alec Yereance and Erv Young. Dick Ranger was intimately concerned in the program in connection with the radio-photograms which were received and flashed on the screen at the main dinner. Elsewhere in this issue will be found details concerning this wonderful accomplishment. The writer was Master of Ceremonies of the broadcasts from Walker Memorial, where a Pop Concert and Smoker for undergraduates and alumni was the feature. The only other elevener there was William Fortune, I.

While the guest of the Technology Club of Rhode Island at its annual mid-winter dinner and bowling match at the T. K. Club in Pawtucket, in January, I was delighted to find R. H. Lord, VI, and Morell Mackenzie, II, among those present. Lord is doing nicely with the Manufacturers Mutual Fire Insurance Company, while Technology men tell me that Mackenzie is one of the big textile men in Rhode Island at the present time. He is manager of the Glenlyon Print Works of the Sayles Finishing Plants, Inc., at Phillipsdale.

Bill Whitney, V, has left New Brunswick, N. J., where he was manager of the marine department of the Brunswick-Kroeschell Company and is now in Hartford, Conn., where he is manager of sales for the Maxim Silencer Company. Bill certainly had a splendid continuous record with the New Jersey concern he just left, because during the entire fourteen and one-half years since he left Technology he has been with that one concern.

During February and March I plan to visit Hartford, Pittsburgh, Buffalo, and Schenectady with 1926 Tech Show as well as twenty-one cities in the South and West, so I hope that I'll be fortunate enough to meet every 1911-er within hailing distance during this tour.

In closing, just one more suggestion: Arrange *now* to attend that Fifteen-Year Reunion at Saybrook at the end of May!

ORVILLE B. DENISON, *Secretary*,
Room 3-207, M. I. T., Cambridge, Mass.
JOHN A. HERLIHY, *Assistant Secretary*,
588 Riverside Ave., Medford, Mass.

'12

The Class of 1912 was represented by two members at the annual Alumni Dinner, held this year at the new Boston Chamber of Commerce Building. Tarr from Gloucester and Walter Laing from West Roxbury were the only entrants. Your Secretary was in bed with a bad throat and could not attend. Coöperation in supplying news for The Review seems to be a lost art — hence the brevity.

FREDERICK J. SHEPARD, JR., *Secretary*,
125 Walnut St., Watertown, Mass.
D. J. MCGRATH, *Assistant Secretary*,
10th Ave., and 36th St., New York, N. Y.

'13

Classmate Achard, after a hectic day chasing stock and bond purchasers, drops in for a comforting smoke and chat. For want of better topics, or perhaps just to relieve my pent-up feelings, I tell him, in terms which the all-too-proper Editors of The Review would censure, my opinion of some 400 men who are either too lazy or just plain indifferent to take any interest in class notes.

1913 Continued

In case any member of the Class of 1913 is not aware of the following I would like to state a few facts. The Alumni of the Institute publishes eight times a year a graduate magazine in which are supposed to appear items of personal interest to the members of the several classes. The word "supposed" is used advisedly because in many cases, and particularly that of the Class of 1913, the notes are probably of not much interest. And why? Because your Secretary is not a mind reader or gifted with any supernatural powers. He has had a fair education, as it were, and can with some degree of intelligence decipher or even read any communications that may be sent him and rehash them or at least copy them for publication in The Review. But, he cannot make a cussed bit of news out of nothing. And to try to make some foolish chatter never did appeal to him and does not now.

Your Secretary, in short and in full form, is just an ordinary human, in spite of the fact that he is Secretary of the greatest Class that ever was graduated from the Institute, and so on, from the rock bound shores of Vermont to the wave-lapped edges of Nevada and all the rest of that junk. And being human he naturally has the ordinary and usual feelings that go with such a being. He really likes to hear from his classmates. Or perhaps it would be more truthful to say that he expects he would like it if he ever had a chance to experience the sensation. The one or two letters from Larry Hart and Allison Smith rather strengthen his belief that he would enjoy it; but after reading the same one or two letters over and over again each month, even they cease to have their effect.

For the further edification of the unsuspecting, your Secretary after returning from the great World War and placing his noble self on the market again, was forced by circumstances which he could not control to take up a new line of endeavor. After four years at night school he received a piece of parchment or Bristol board which said he had passed the required course in legal subjects, and a little later still was informed by the Examiners of the Commonwealth of Massachusetts that the Bar of said state would probably be none the worse if he were admitted to the practice of law. They were right for the old Bay State is still struggling along as of yore, and with it your Secretary is struggling to get a living for one wife, the best ever, and three-fourths of a bushel of people, aged ten, four and two. All of which leads up to the point that said Secretary although enjoying good health, thank you, is not overburdened with idle time. And he isn't any story writer. He deals in facts, just like all other good Technology men, and when he gets no letters from his classmates he knows that to be a fact. And on that fact he cannot prepare a lot of interesting class notes.

Fred Murdock, who was ultimately driven to the tall timbers of the cotton fields by the non-support of his classmates, of whom your present Secretary was a regular offender, says very adroitly, "I have enjoyed very much the *piquant* quality in your notes." The dictionary says that *piquant* means (1) having an agreeably pungent or tart taste, sharp; (2) interesting on account of smartness or pungent wit, racy; (3) wounding the feelings. After reading that definition I wish Achard would drop in again. Notes don't have any taste and are not sharp. There has been absolutely no wit or humor in the notes. And, Lord knows, up to now I have hurt nobody's feelings. That boils it right down to "racy."

Now, fellows, as I wrote once before, this is no one-man job. I do not think it is incumbent upon me to write to all my classmates and ask them about themselves. It is strictly up to you to write me and tell me your personal situation. I am glad to help out in collocating the news and passing it along to The Review, but if you think I am under any delusion that it is my job to make up a lot of taffy just to entertain you fellows who have not sufficient interest to write me, you have one more think to draw to fill that bob-tailed flush. I hereby and hereon serve notice that this is the last time I am going to try to fill up space merely to keep my promise that 1913 would contribute something for each issue.

HARRY D. PECK, *Secretary*,
99 State Street, Boston, Mass.

'14

The past month witnessed two gatherings of Fourteeners. The first was on January 5 at the Engineers Club when the Boston contingent met for its regular monthly luncheon. Downing was the speaker and he discussed the subject of the present condition of the Merchant Marine in an exceedingly admirable and entertaining manner. Downing has been in the shipping game since graduation and is well qualified to talk on this subject. Those attending the luncheon were Crocker, Stump, McClellan, Wylde, Perley, Fales, Atwood, H. S. Wilkins, Dunn, Ricker, Ahern, Harper, Downing and Richmond.

The second meeting was on the evening of January 9 when nine Fourteeners met at the All-Technology Dinner held at the Boston Chamber of Commerce. Jimmy Judge came down from Holyoke and Malc MacKenzie from Derry, N. H., to attend this event. The others attending were Stump, Atwood, Swift, Wylde, Favorite, Eberhard, and Richmond.

One of the saddest notices that has come to your Secretary was that Charlie and Mrs. Fiske had lost their nine-year-old son Charles Parker, Jr., at the Brookline Children's Hospital on January 4. The most sincere sympathy of the whole Class is extended to the bereaved parents.

The Phantom Radio Dinner held on January 19 was indeed unique. Just how many Fourteeners attended one of the various dinners or listened in is problematical. Jimmy Judge listened in at Holyoke and from a letter written just after the dinner none of the spirit was lacking. Your Secretary telegraphed the greetings of the Class from Cambridge to the New York gathering.

Congratulations to Crocker! The arrival of a second son, Allen Carrol, on Christmas Day, has been announced.

Boston has lost two more Fourteeners. Chet Ober has been transferred from the Boston to the New York office of the A. W. Shaw Company and George Perley has been transferred to the New York office of the Holtzer-Cabot Company. — Hal Ambler has resigned from his phonograph and radio sales organization and is now traveling for the Associated Factory Mutual Fire Insurance Companies.

H. B. RICHMOND, *Secretary*,
100 Gray St., Arlington, Mass.
GEORGE K. PERLEY, *Assistant Secretary*,
45 Hill Side Terrace, Belmont, Mass.

'15

No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the March issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to Frank P. Scully, Secretary, at 118 First Street, East Cambridge, Mass., or to Howard C. Thomas, Assistant Secretary, 100 Floral Street, Newton Highlands, Mass.

'16

There was no news in last month's Review and there will be very little this month. Unless your Secretary can hear from some of you men outside of New England, you will see the notice very often "No notes received from the Secretary." Just to show how well the Class correspond the Secretary wishes to state that on January 1, fifty letters were sent out to men in different parts of the country asking each to send $2.00 as dues for the Class, and so far one reply has come in. That is about the percentage of replies your Secretary always gets, so you can all figure out what a real job it is here at this end. If you were not the one who sent in $2.00 let this be a reminder that you should do so at once, as we are to have a Reunion this year and will need some funds to finance it. Show your class spirit and write us a letter and don't forget to enclose a $2.00 check.

1916 Continued

As you all know, Chuck Loomis is now Assistant Secretary and will have a real story for you next month. We could always depend on Chuck, so know he will do his share, as he has the real Technology spirit.

Sandy Claussen wrote about the Alumni Dinner that was held in Boston this January, as follows: Nineteen-sixteen had a fair representation, considering the storm, and so on, at the Alumni Association Annual Banquet, Saturday, January 9, at the Chamber of Commerce. The following were present including myself: Knight Owen, II, H. B. Shepard, II, D. B. Webster, X, E. F. Hanford, XII, P. N. Brooks, II, S. R. Berke, II, and W. G. Brown, VIII. By the way, five out of the eight are Course II. They always were a live bunch!

Philip C. Baker wrote a short note stating that he hoped the Ten-Year Reunion would be held near New York. Let's have the opinions of others on this subject. — Found at last. K. B. Owen, and right here in Boston with Paine Webber and Company.

In looking over the report sent your Secretary from O. B. Denison showing the record of classes in the 1925 dues campaign, we note that of the classes between 1910 and 1920, 1916 leads with the exception of 1911, and we all know why that Class is so far ahead of the rest, so if you men will now brace up and send in your class dues we will get somewhere; if not, you will have to be satisfied with 1916 notes in The Review as they have been the past year, plus or minus, mostly minus.

If any of you men happen to be out East Arlington way some evening and desire entertainment, just go to the Capitol Theater and see what a fine job our friend, Bill Drummey, turned out. It certainly is a fine piece of work and something to be proud of. Good luck to you, Bill.

Your Secretary received a Christmas and New Year's greeting from Mr. and Mrs. I. B. MacDaniel who are still on the Pacific Coast.

And don't forget next month you will hear about our Reunion. In the meantime write to your Secretary.

D. N. Barker, *Secretary*,
14 Marathon St., Arlington, Mass.
Charles W. Loomis, *Assistant Secretary*,
7338 Woodward Ave., Detroit, Mich.

'17

A ding-dong cocktail cheer of the annual Alumni Dinner was rendered by the seven members of the Class of 1924 present. With the soup, approximately one-seventh of the diners arose in mass formation in the northeast corner of the hall and a "We are happy" with three full-throated "Seventeens" boomed forth over the multitude. Some other desultory cheering was heard and several suppressed grunts from a 1916 man. Following the conclusion of the Zizz film the entire 1916 delegation went home in a Franklin sedan. He very kindly offered transportation to certain Seventeeners who acted as ballast.

All in all the dinner was a success — even if our honorary member, the silver-tongued, suave and svelte Dr. Allan Winther Rowe, '01, did leave his ticket at "the hospital" and therefore was obliged, because of the innate cautiousness of Chambers of Commerce, to pay twice; something about which our other honorary member, Horace Bursar Ford, remarked, "This never happened to you at Walker, Al!"

Not alone was our attendance largest but one of our members was the recipient of some well-merited praise by the guest of the evening, Dwight W. Morrow. Mr. Morrow modestly disclaimed any real knowledge of aëronautics and said that the advice of Ed Warner had made the work of the President's Aircraft Investigation Board possible. Although not named by the speaker his words affected another 1917 man present, for Mr. Morrow certainly did emphasize that this country must strive to promote the extension of civil aviation. Whereupon Ray Brooks with open notebook proceeded to indite therein Mr. Morrow's words in his own version of Phillips Code. It was a kindly act indeed for Ray had sunken in spirit when Mr. Morrow's predecessor, Dr. Herty, had taken a side-swipe at Florida. Both of these topics are dear to Ray's heart and by the time these words appear intertwined and chasing around through the voluminous advertising columns of The Review the secret may be out.

To mention by name others of the Class in attendance is no simple matter as a list was not collected. The meeting was conspicuous by the absence of the Secretary but it is only fair to say that Dudley Ellipsis Bell was also suffering from aphonia and hence didn't see why he should come when he stood no chance to sell that other hammock. Brick Dunham and Ted Bernard, while not the most talkative mem-

1917 Continued

bers of the Class, were there and made themselves heard. Likewise that beloved ascetic recidivist, Bill Eddy. Nelson Keene, Doug McLellan, Ken Bell, Forrest Hatch, Mac McGrady and Clair Turner were there. We know they were because the first offered words of encouragement, the second tried to kid us but didn't succeed, the third made a wise crack about our necktie, the fourth gave us an extra cigar, the fifth brought good cheer and the last told us all about the Public Health meeting and then some.

Also Joe Gargan, Chris Crowell, and Phil Hulburd impressed their presence upon us. Nor must we overlook Dick McLaughlin who knew all about why General Butler ought to go to Chicago and was ready to prove it. And lastly we come to that quondam erudite and noblest Protean mammoth of them all, he who thinks when he thinks and does other things when he doesn't think. His name is Monty although he was christened in extensio George Montgomery Lovejoy, Junior.

Next year the Class expects to hold a party of its own and to invite the Alumni Association to come. This perennial domination of the Association's party is over-stepping the bounds of hospitality and the courtesy must be returned.

It were folly indeed to append further comment as an anticlimax to this magnificent bit of reporting art submitted by an anonymous contributor. It is unwise and all but impossible to add notes of other happenings, for the month's mail consisted of a request from Joe Clarkson for T. D. Libby's address, a note from Bob Erb that his (and J. F. McElwain's) shoe company was expanding rapidly and a raft of congratulatory messages, sprinkled with bills, resulting from the arrival of another son in the Secretary's family.

RAYMOND S. STEVENS, '17, *Secretary*,
30 Charles River Road, Cambridge, Mass.

'18

No notes have been received by The Review Editors from the Secretary of this Class for inclusion in the March issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the Class having news or inquiries should address them to Percy W. Carr, Secretary, at 400 Charles River Rd., Cambridge, Mass.

'19

We collected a group of eight men for the Annual Alumni Dinner on January 9 and spent an interesting evening in spite of the storm. The following loyal nineteeners braved the elements: Blake, Bolan, Goodridge, Mitchell, Palmer, Selya, S. B. Smith, and yours truly. Such occasions and the Phantom Radio Dinner broadcast on the nineteenth make one feel personally very insignificant, but give one a keen sense of the power of Technology unity both here and in other countries. On Thompson's Island, in Boston Harbor, I listened in and can hardly describe the thrill of knowing that literally thousands of Technology men were clasping hands across the world and renewing memories and friendships in hearing familiar voices and music. I hope that many of you shared the thrill and that we may some day hold a class broadcast of sufficient interest to put us on the map.

Not since the dinner have we heard directly from Bob Bolan but we assume he is still walking around in the clouds as the proud father of Peter, born on January 10. Nineteen welcomes a future Tech man and sends congratulations and best wishes to Bob and his wife.

Last month we published a newspaper account of the adventures of Oscar Mayer so we are more than happy to have a personal note from him this month. He writes from 39 Beekman Place, New York City, as follows: "The extreme gauntness of your, or I should rather say our, column in The Review hurts! I look hopefully each month for news and am almost uniformly disappointed. Overshadowed as I am by the publicity which has followed my wife's (Natalie Rogers') adventures in the Amazonian jungles, let me horn into the column and force her to share a bit with me by announcing that I too was among those present. We met William Stevenson in his home town of Antofagasta, Chile, where he is prospering in his father's lighterage and forwarding business. Bill still clings desperately to his privileges as a bachelor. Victor Stevenson, the chap you will remember by his wonderful smile, is married and contracting in Bolivia. At the time we were in Chile, June, 1925, Victor was erecting a large plant for some mining concern operating near the famous Potosi district. We tried to make connections and meet him at Rio Mulatto in passing, but failed. Incidentally, the man whom we have to blame for sending us into the Beni country was the elder Stevenson who regaled Natalie and our companion, Miss Ora Ford, with charmingly impossible pictures of that little known district. He promised us adventure. We got it!

"At Chuquicamata I met some Technology men but not nineteeners. We were a month in La Paz equipping for our trip; made a flying visit to Peru via Titicaca in order to sneak back proper arms and ammunitions, and then spent something short of four months in the descent of the Canata-Mapiri-Kaka-Beni-Madiera River system down to the sea, a voyage of about 3,500 miles on Amazonian tributaries made on rafts, canoes, and *bataloas*. Natalie was the first woman ever to complete this trip. We all landed in the hospital when we came out, two of us pretty seriously ill.

"Beeche is married, and if my memory serves me rightly, is living in Santiago. Martinez we also heard was married. Checa was living in Lima when we were there, but unfortunately we did not meet. Kindest regards — Buzz."

PAUL F. SWASEY, *Secretary*,
Box 1486, Boston, Mass.

'20

As an advertising man — not an engineer — I'm supposed to be able to write so as to produce returns but evidently my copy on '20 is not the kind that pulls for I'm sure that there's nothing the matter with the particular medium in which it appears. All of which is a roundabout way of saying that my incoming mail has dwindled to the vanishing point.

If it wasn't for Norrie Abbott and Chuck Reed you'd probably have a hard time finding these notes. Norrie appears to consider it of first importance as a personal news item that he is still to be numbered among the anti-Benedicts, although he expresses some uneasiness as to the status of the Class in this respect. He says that although the "antis" were in the verbal majority at Reunion, recent announcements bear testimony to the fact that their ranks are being steadily depleted and he's afraid that they'll be pretty heavily outnumbered by the time we get together again. All of which makes for progress if not prosperity, say we who look pityingly or longingly, as the case may be, upon our benighted bachelor brethren.

Norrie is with the Manufacturers Mutual Fire Insurance Company with headquarters in Providence. "Fire", says Norrie, "seems to be considered by 1920 as hot stuff, since Perk Bugbee, Larry Boyden,

1920 Continued

Badger and others have been devoting their lives to its downkeep." Twenty is well represented at the Rhode Island Technology Club gatherings as Johnny Nash, Ev Freeman, Henry Dooley, Warren Chaffin, Howie Collins, Pete Woolf and Clif Rathbone are also located in this bootleggers' stronghold, and, according to Norrie, appear to be happy and contented although how they can be in a one-horse town like Providence is a cause of much wonderment. (If that doesn't get enough of a rise out of some of them to generate a comeback I'll be disappointed.)

Norrie says he heard from Dave Fiske who told of the joys of teaching at the place that Red Grange made famous. Dave is married and a confirmed pedagogue it would appear. Ned Van Deusen was last heard from in Pasadena where he is now located. Norrie also got a call from an ex-President of the T. C. A. now doing missionary work in Boston, the Reverend Scott Hunter Wells.

Chuck Reed crashed through with a darned nice letter just in time to miss last month's notes. Chuck is sales manager of the Forbes Varnish Company at Lakewood, Ohio, and previously was technical director of the same company, supervising the laboratory and experimental departments as well as the lacquer production department and purchasing of raw materials for lacquer manufacture. Chuck has had some interesting experiences in the development of this business and I know from people who have the facts that he's done some mighty valuable work there. Chuck is married and has a little boy almost two years old. He says that Bill Shakespeare is in that vicinity occasionally in connection with sales and executive work for the Shakespeare Products Company. Chuck recommends Bill as an authority on building up a business of his own. Bill is married and has two children.

The engagement of Robert Davis of Course VI was announced some time ago. If he is not already married, he is to marry Miss Lucy Barnard of St. Louis. At last accounts Davis was a radio engineer with Westinghouse at East Pittsburgh. — Bob Bradley recently announced his engagement to Miss Ruth Radcliffe Earl. — Harold T. Dennison of Course IV announced the birth of his daughter, Barbara Little Dennison, on December 21. He is located in Atlantic, Mass., and is an architect and builder.

I had a pleasant visit with Bunt Murphy not long ago. Bunt is doing social service work in Boston but is crazy to get back to Asia Minor where he can do it on a grand scale. He wants to head for Persia next time and I wouldn't be surprised if he lit out in the spring.

I ran into Jim Gibson at Thompson's Spa the other day. Jim doesn't get into town very often nowadays as he has moved his office out to Newton where he parcels out real estate. Jim is just as smiling and debonair as ever — he is what you would imagine a successful realtor ought to look like.

HAROLD BUGBEE, *Secretary*,
9 Chandler Road, West Medford, Mass.

'21

John T. Rule, XV, De Menil Building, St. Louis, Mo., writes that he is in business for himself as a consulting engineer. Slide shares his office with Herb DeStaebler, XV, and they both do engineering of all sorts, specializing, however, in valuations and appraisals. John T. Rule, Jr., is now about four months old and growing as fast as St. Louis. Slide also sends the following:

"Lyall Stuart, IX, has just been made President of the St. Louis Structural Steel Company, undoubtedly the best structural steel concern doing business in this territory. Lyall has the goods. John W. Barriger, XV, was here last week and I got an earful of the Pennsylvania Railroad for a change. He is a yard master at Harrisburg, Penna. He also seems to be shock troops for the acute attacks of indigestion the road suffers at times.

"Snug Etter, I, and Homer Howes, I, of the Class of '20, I believe, are in town with the Air Reduction Company and the Bemis Bag Company respectively. We attempt to have luncheon together every Friday. Usually at least one of us is on hand."

During the latter part of 1925, Miss Willa Lindgren and Everett A. Soars, XV, were married. They are now living in New Brighton, Penna., where Ev is located with the Townsend Company, rivet and wire manufacturers. Formerly he held a splendid teaching position with the Sewickley Preparatory School. Ev says his new association with the largest rivet manufacturer and oldest wire mill in the U. S. A. is just what he wants.

George Thomson, X, would you believe it, is engaged. Congratulations, and we'll all be at the wedding. — S. M. Silverstein, X, has been elected to the Board of Directors of Bigelow, Kent, Willard and

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Company of Boston. Sliver is director of the Industrial Research Division. — Joe Lurie, X, who is working with Silverstein at this writing, is known to be engaged to Miss Gertrude Dana. Can you imagine Joe engaged to be married within a month and an apartment all picked out? Congratulations!

R. A. St. Laurent, *Secretary*,
431 Oliver St., Whiting, Ind.
Carole A. Clarke, *Assistant Secretary*,
121 Shearer St., Montreal, P. Q.

'22

By all odds, of course, the most important announcement we have to make this month is the one first made in frantic and exultant italics at the conclusion of our brief screed in the February number. It is to the effect that our Travelling Secretary, Mr. Henry John Horn, Jr., has bowed to the will of the Executive Committee of the Class and accepted the chairmanship of Twenty-Two's gala Five-Year Reunion, to be held in June, 1927.

We know that no one who reads this can fail to throw his hat high in the air, kick it over the goal posts, and go out into the streets slapping total strangers on the back in the course of an individual snake dance down the main thoroughfare of whatever city he may be in. It is genuinely great news. Heinie was the Executive Committee's first choice for the job. This former chairman of the Junior Prom Committee and general all-round statesman in the undergraduate affairs of '22 is the one man best qualified for the job. Twenty-four hours after his acceptance he was already hard at work on preliminary plans and we need not labor at the proof of our statement that under his direction '22 is going to lighten the dark heavens of the Institute eighteen months hence with the most luminous and spectacular star shell of a celebration that any class has yet let off. The plans, you may be quite sure, will be conceived in a grand manner and put into execution with a degree of finesse which will astound every one. Heinie is not a piker in such matters and already has the idea that it might be a gracious thing to invite all the rest of the Alumni Association to watch the proceedings, thus replacing the conventional Five-Year All-Technology Reunion of the past.

We are beginning at the psychological time. Nebulous details have been in the minds of all of us for some little while but the moment has now arrived when something concrete should be set down on paper. A sooner start would have meant that some of the earlier enthusiasm would evaporate before the time actually arrives. A later start would mean, beyond doubt, a hurried scramble at the end. As it is, we shall not be hurried. We shall have ample opportunity to develop and put on a celebration which will linger in the mind of every man in the Class for many years in the future. Beyond this statement your clerk does not at the moment wish to go, preferring to leave the matter in the capable hands of the General Chairman who has words on the subject to say to you below. In fact, you might just as well skip the rest of what we are going to say and jump immediately to his own communication.

Heinie's first move will be, naturally, the sending out of a general questionnaire to all members of the Class, asking them for their suggestions on what kind of a Reunion they would most like to see. Following this, announcement of the entire personnel of the main Committee and of the various sub-committees on program, housing, publicity, prohibition, and so on, will very shortly be made.

There is no reunion in the history of any class ever quite so gay and lighthearted as the fifth. By the tenth most of us will be soberer citizens than now. By the fifteenth we shall be quite definitely grown up, and by the twenty-fifth our principal concern will be the exchange of golf scores, obesity cures and family statistics. While, therefore, we still have our health and our spirits, let us fall to and plan a celebration in 1927 which will leave a mark for future classes to aim at and ignominiously miss.

Anything else we might have to say would be this month an anticlimax; nevertheless, there are one or two excellent facts which merit publicity. We received several days ago, for example, a thoroughly charming letter from Bill Stose whose present dwelling is 4705 Chester Avenue, Philadelphia. As Bill rises in the world his handwriting degenerates, and if there is any mathematical connection between the rates of progress we should say by now he was in the ten-thousand-a-year class. By the time he hits twenty thousand we hope that he will dictate to a stenographer. His present letter looks a little bit as if it had been sent by radio from Australia, but we will add, in all justice, that it was worth deciphering. He wrote us on the conventional note paper, using a different system of rotation on every sheet. This, plus his one or two indiscretions, may make the transcript look slightly elliptic, but here is our version.

"Your recent letter to Deck Shaw with its insulting remarks about my laziness has proved the necessary shove to get me started. In fact, I have to write in self-defense to prove there is nothing wrong with my right arm and that when sufficiently inspired, which I admit is seldom, I can dash off at least that which passes as an epistle. The fact is that lack of inspiration, or even news, is the main thing that has prevented me from writing. However, once started let us see what I can do.

"First, if you will note that my script is getting no better. [This has already been noted. — E. F. H.] However, I wish to explain that the present horrible example is caused partly by a table in more or less unstable equilibrium.

"Heinie has been here at the house twice since Christmas, and is always welcome, bringing us more news and stories than any three months without him. Perhaps I had better go back a little and enumerate my roommates. Four of us have the second floor of a house and get along beautifully, perhaps because we are never all at home at the same time. Deck Shaw, George Anderson and myself are the Technology contingent and the fourth fellow is a New Hampshire man, Parkhurst.

"I saw Lewis Tabor last week and he is as prosperous as usual. His Packard is certainly the real thing. You ought to arrange for The Review to furnish you with a similar one. [These arrangements have been in process for the past three and one-half years but your Secretary has, as yet, nothing to report. — E. F. H.] I am in hopes of acquiring some means of locomotion, other than walking, this spring, myself, but at present Packards are out of my class. Lewis tells me you may be down this way some time soon, and, if so, I hope you will make 4703 Chester Avenue your headquarters. Ask Heinie if it is not a pretty good place to hang out. [Heinie volunteered this information without being asked and added several corroborative details. — E. F. H.]

"I have honestly forgotten just when I last wrote you so I hardly know just how far back to cite events. I think it must have been last September.

"I was in New England prior to that, but not in Boston. It was a very hurried trip, over Labor Day. Otherwise you might have seen me,

1922 Continued

if you were there yourself. I have been in Philadelphia with the Atlantic Refining Company just one year now. I have learned a lot in this year about oil and industries in general as I worked over six months at shop work as one of the regular plant operators, although on a small experimental still. [Working over small experimental stills is not, this day, a unique occupation. Bill should have added more definitely that he has been dealing exclusively with petroleum products. — E. F. H.]

"I was home at Christmas and I saw Vernon Whitman. He is still at the Bureau of Standards and is now studying three days a week at Johns Hopkins to get his doctor's degree. This young man will some day startle science and the world with his knowledge and ideas.

"Mort Bloom was in Philadelphia looking over a job at the Atlantic Refining Company last week but he has not been heard from since. He and I had a very pleasant evening the one night he was here. The rest of the gang could not be rounded up.

"I have been to most of the Technology affairs this fall and winter and the '22 men I saw included John Sallaway, Mink, Tom Gill, and Smith, this last one being the same who used to play the piano with Bill Elmer. I likewise saw Frank Houghton at Lewis' just before Christmas, when we had a red hot game of bridge.

"The shift work that I have been on has certainly been a strenuous life. I was at it from the middle of February to June without let-up; two weeks from 7 A.M. to 3 P.M.; two weeks from 3 P.M. to 11 P.M.; two weeks from 11 P.M. to 7 A.M. and twenty-four hours off every six weeks. Then from June to November I was on shift intermittently and now I am off for good. Imagine the operators who stick to it year after year for thirty, forty and fifty years! A devil of an existence! The eleven to seven shift was the worst for me, although getting up at 5:30 A.M. to get to work at 7:00 was no picnic. I had quite a time sleeping in the day time and I used to get along with four or five hours sleep in the hot weather.

"I suppose marriage prospects are again in order and I report a calm sea with no prospects of storm in sight or indicated by wind or barometer."

We would urgently request some one else to follow Bill's admirable example and give us another such letter, or preferably three or four, for publication in April. There are too many interesting experiences being hid under the cloak of modesty and it is time that we transvaluated our sense of advertising values.

Bill's news of Mort Bloom was excellently supplemented by a note from Kenneth Reid in the Division of Industrial Coöperation and Research on January 28 which informed us that: "We have just heard from Mr. Mortimer C. Bloom, '22, who requests us to pass on to you the information that he is now located with the Tidewater Oil Corporation and may be addressed care of the Industrial Y. M. C. A., Bayonne, N. J."

And from Pittsburgh, from a Course II man comes the one bit of vital statistics we have this month to publish. Mr. and Mrs. Howard B. Upham announce the birth of James Bailey Upham on January 27, 1926. We offer our most sincere congratulations.

This seems to exhaust our slender stock of information this month and we shall, therefore, pass the torch on to Heinie Horn.

ERIC HODGINS, *General Secretary*,
Room 3-205, M. I. T., Cambridge, Mass.

FIELD NOTES

The past month has been a very busy one for the boys. There have been vacations, and holidays without vacations from which to recuperate. Phantom Dinners have been held at four bucks the dinner — side dishes extra. And generally much business.

Your correspondent's visits to the Borough of Manhattan have been interspersed with the renewal of old friendships. All in all, Ginuary has flowed by rather quickly.

One Mr. Lachlan MacKenzie accompanied your correspondent to a hockey combat between Williams representing these United States and Queens upholding the honors of them Canadians. The honors went to the Canadians. Prior to this we had held a bit of a reunion at the quarters of the aforementioned Lachlan MacKenzie. The honors went to the Scotch. Mac is now with the research division of Hyatt Roller Bearing making daily pilgrimages to Joisey for the express purpose of finding more places to put roller bearings.

Also saw Dyna Spaulding while at the Technology Club with Mac. Dyna is quite prominent there, being one of the biggest men in the Club. Dyna is largely responsible for the plentiful supply of ice at the hotels, and so on. He plies his trade as a refrigerating engineer for Shipley Construction and Supply Company.

1922 Continued

These Canadians certainly take their hockey seriously. Laboring under the impression that our good friend Tommy Thompson knew when to take his hockey and when to leave it alone, we ventured forth to the Garden. Ottawa won from New York in a sudden death. Your correspondent nearly lost a good friend and advisor. Also a sudden death.

In the heat of the argument we came upon one Charles K. Crofton who was hastening, bag and baggage, in the general direction of the Pennsylvania Station. Naturally, your correspondent ever alert for an odd bit of news (if we can call this stuff such) begged interview with Mr. Crofton. I find some rather scanty notes which were probably taken at the time and submit them herewith. Creepy informed us he was with the Rochester and Pittsburgh Coal and Iron Company and that, as yet, is not married. Questioned as to his headquarters we were advised "nowhere." Feeling that we were losing ground we inquired as to his residence. Creepy pointed to his bags. With considerable modesty he then told us that, while in New York, his headquarters were at 1 Broadway. It was at this point that your correspondent dropped the familiar "Creepy" and questioned, "To what, Mr. Crofton, do you owe your success?" "To Ed Pinaud's hair tonic," says Creepy. A dark complected gentleman, overhearing the conversation, was seen disappearing into Liggett's. We did our best to keep Creepy from making his train to Pittsburgh, but he left us flat in the Grand Central without even availing himself of the opportunity to see Tommy off on the Stamford local.

I think Tommy was rather anxious that Creepy be an eye witness of his departure on this particular local. Eye witnesses are of considerable value in libel suits.

And speaking of John Sallaway, your correspondent journeyed to the City of Brotherly Love to join with the rest of John's many friends and do honor upon his return to Philadelphia. But alas! No longer do the customers gather at the bridge table of the house of Anderson, Shaw and Stose. No longer does Mink gleefully double or redouble as the case may be. 'Tis customary now for the customers to stand with bowed heads and solemnly chant "Oh, how we miss you tonight." For John has gone to foreign parts. We have traced him to Titusville, Penna. Every effort will be made to visit this hamlet in the near future and give the customers a detailed report.

Incidentally, every Thursday at twelve-thirty there is a Technology luncheon at Wanamaker's. They are mighty nice and your correspondent highly recommends your dropping around should you wander in to Philly.

George Holderness and I threw a little chow into our systems as soon as I returned to the Borough of Manhattan. George has been very unfortunate. Just had a few weeks off to enjoy the holidays. Besides keeping the world well posted on the activities of Course IV, George is making John Russell Pope one of New York's most prominent architects.

On the morning of January 19 all was quiet along the Potomac. And then the bomb burst. Our worthy Gensec wired that he was coming to New York to report the Phantom Dinner. Your correspondent's pulse was idle for a mere three minutes. The eagle eye of his superior was to be upon him.

The Gensec is a very busy man on his flying trips to the city. He allowed me the hour between 12 and 1. The Gensec is so prompt he was ten minutes ahead of time and left fifteen minutes early. There was much talk of class organization in general and reunions in particular. He left in the same kind of a breeze that he arrived, with the parting shot, "Be on your toes tonight for there is much work to be done." It took many hours for the full strength of that remark to strike home.

The Phantom Dinner was without parallel. It might be termed an overflowing success. The customers came in such numbers some had to eat in more or less adjacent territory.

Eric, our erstwhile reporter, was among the prominent. The back of the house saw more of him than they did of the generals. One has to see him in action to realize his capacities. What a nose for news he has. He scattered glad tidings hither and yon, modestly received the good wishes of the multitudes, and aided in successfully putting across the cheer of 1922 and 1917.

Unfinished memoirs of the Phantom Dinner: One Duncan R. Linsley, important member of the dinner committee, holding the gate-crashing to a minimum. 'Tis sad to relate that this was necessary. Five dollar bills must be scarce. — Ed Allen and Herb Ham indulging in an odd bit of indoor sport: Herb trying to sleep and Eddie to keep him awake. A highly competitive contest. C. Yardley Chittick awarded the verdict to Herb at the end of the evening. The award was made by proxy. This contest will be repeated in June, 1927, according to the advice we have from Jimmy McIntyre. — Bill Robeson appeared in person and thereby caused much rejoicing. It's a long time since we've seen Bill with the gang and it was a treat. His behavior was excellent.

Dave Minton has been a very active customer ever since entering the Class. He now comes forward with an announcement of considerable importance: the whereabouts of one S. Parker McConnell. 'Tis none other place than Poughkeepsie. When we think of how we've missed Parker in Mt. Carmel, Penna., Newark, and Syracuse, we trust we'll get to the aforementioned village before he disappears. Mac's with the Tidewater Oil Sales Corporation.

The three musketeers from the Club, Dyna Spaulding, Mac MacKenzie and George Holderness were there. Rex Hall let the service of the Bell Telephone go to the dogs and showed up. Rex always does show up. — Lee Carroll came without his orchestra. This was a big relief to the Victor Salon outfit. — That distinguished citizen from Matawan, Gus Munning, made his appearance promptly at seven-thirty. — Al Reinhart was a bit late. Service is not so good from Flatbush. — Professor Ed Thimme, glasses et cetera, must have arrived about five-thirty. He was way down front. That is, front for the '22 delegation.

From your correspondent's humble point of view it was rather regretable there was not more time to mix around and partake of the old Spanish custom. But, of course, meals are meals and speeches are speeches and they must be absorbed when hot.

Paul O'Brien was there. I had three words with Charlie Smith, two with Mac MacDonald; saw Danny Moynihan in the distance, likewise George Dean and Bill Bainbridge; had a chance to say "hello" to Jim Nesmith and Is Silverman, and so it went. But from whence they came and what their general objective was, I know not.

It was with considerable effort we broke Eric away from his many friends and escorted him to Upper 9, Car I, on the 12:30 bound for Boston. And 'twas with regrets that we watched him waving his handkerchief aloft and shouting farewell.

All is quiet along the Potomac.

H. J. Horn, Jr., *Field Secretary*,
47 Center St., Kingston, Pa.

1922 Continued

COURSE XIV

As you will notice there has been a change in the Course Secretary. The Gensec has asked me to take over the gathering of the course news. I have therefore sent each man a questionnaire in the hope of getting this news. Watch out for this questionnaire and be sure to fill it out and mail it to me. We have used the latest mailing list, but we may not have your right address. So if you don't receive a questionnaire send your correct address to me.

I was at the Institute this Christmas when I was home during the vacation, and saw Professors Goodwin, Thompson, and Nobel, and also our old friend Mr. Stockbarger. Dingee is still there working for his Doctor's degree, teaching, and he is also working for Stocky. He intimated that Bill Howe was married.

As for myself, I am down here at Penn State as an Instructor in Electrical Engineering, and am having the time of my life. I have classes in theory and laboratory in electrical engineering that is given to non-electrical engineers. Then, I have work in the Standardization Laboratory, as well as in the Freshman and Sophomore electrical engineering laboratories. So you see, my life is nothing but the reading of laboratory reports all the time. I like the work and the place, though, so I am having a great time. I am living at the University Club, and if any of you fellows should come this way be sure to look me up.

Well, let me hear from those questionnaires. We must have some news of Course XIV. The rest of the Class think we are dead.

ALBERT P. POWELL, *Secretary*,
Room 203, Eng. E, Penn State College, State College, Penna.

'23 By the time you read this stuff, it will be March and spring will be here with all its twittering birds, mud, slush and violets. However, as I look out of the office window onto the snow-covered roofs of Chinatown, I know that March is still in the offing.

Since the last notes went to press, two opportunities for local Technology men to gather around the table have come and gone. First the annual Alumni Dinner at the Boston Chamber of Commerce on January 9. 'Twenty-three men were not very numerous at this affair for some reason or other; about twenty turned out. In spite of our poor showing, however, the dinner was a huge success. The Zizz film taken last June at the Big Reunion was shown and the large Chamber of Commerce organ was limbered up a bit for the benefit of Technology grads.

Bob Hershey and Eddie Heap were among those present. Bob is still spending his days around the 'Stute while Eddie's wife awaits his (Eddie's) return each evening from the Norfolk Varnish Works. Myron Chandler was there, and so was Clarence Chaisson. Chandler is still on the job at 50 Oliver Street with the rest of the New England Telephone Company's executives. Chaisson is installing ventilating systems for the Cox Engineering Company of Cambridge.

The second dinner was the Phantom stag one at Walker on January 19. As far as anything to eat was concerned, phantom was emphatically the proper word to use; and as for the stag part of it, I returned home about 11 p.m. and found friend wife sitting in the easiest chair listening in to exactly what I was hearing. The musical program was quite good, and then of course the event of the evening, the broadcasting from Walker and the other parts of the country was something never before attempted on such a scale. The results every Technology man in the world must know. Those present had some fun watching Dennie, our Alumni Secretary, who carried the responsibility for the success of the broadcast from Walker as he paced up and down looking at his watch while President Stratton overtalked his time by three minutes. A few '23 men were there, including Si Rice, Al Parker, J. H. Thompson and Bob Hershey.

Well, here are the notes that have accumulated since the last Review.

ROBERT E. HENDRIE, *General Secretary*,
12 Newton St., Cambridge, Mass.

COURSE I

Jim Robbins, Course I's roaming Secretary, has arrived home after wandering for the past six months on horseback over the northwestern part of South America, trying to determine a boundary between Peru and Chile which would satisfy both belligerents. The United States Commission delegated to arbitrate the dispute between the countries, and for which Jim was working as chief of party on the boundary survey, was forced by the attitude of Peru and Chile to withdraw without coming to any definite conclusions. Jim left for home by way of Florida on December 23 and arrived here about three weeks later. Jim says that the greatest hardship he encountered was making any indentation in his fat monthly pay check. In a vain attempt to make the dent, he took up all kinds of smoking with the result that now he has to have his pipe and matches hanging from his bedpost at night so that he can reach up and take a few puffs between winks. Aside from this I don't believe Jim has acquired any bad habits in addition to those he had when he went down. He did have some real experiences though and I'm going to ask him to put a story of his own in the next Review.

Another wanderer who has returned, temporarily at least, is Al Stewart. A week or so before Christmas he arrived here direct from San Francisco. Al started his wanderings right after graduation, when he jumped to Cincinnati to work for the Big Four Railway. He stayed there a short time then jumped westward, and in the course of two years struck about every town of a population of 500 or more until he reached San Francisco. His longest stops were in Chicago, Denver, and San Francisco. He has worked principally on construction jobs but spent some time drafting and detailing and even dropped so low as to do a little selling, how little he didn't say. Outside of working hours I don't know what he did but he is more sophisticated than he was two years ago. Up in the state of Washington he bumped into Bill LaLond. Bill is in the lumber business and getting rich fast. I don't know how long Al is going to stay in this part of the country. He is working on a temporary job at present at Henry Ford's Wayside Inn, Wayland. He expects to learn to dance all the reels and jigs with H. F. We hear Mr. Ford has given him a flivver but I would take this information with a grain of salt. Anyway he will need a flivver after dancing some of those reels. By the next Review, he will probably be in Alaska or Russia as he hasn't seen those places yet.

Gerry Putnam, although still in Boston, has had a couple of jobs since I last heard from him. He left the Kalman Steel Company in the spring and went with Charles T. Main. He soon severed connections there, however, and next went with Monks and Johnson but

1923 Continued

is now with Stone and Webster. Each job has been on concrete design. Gerry is sure a bear for punishment. Our courses in concrete at the 'Stute were enough for most of us. — Si Rice also has had several jobs since the last Review came out but is now settling down again with J. R. Worcester and Company. — Bobby Burns still holds forth in Clearwater, Fla., as a contractor; but what he is contracting for, aside from money, is still a mystery. I understand that Abe Kenney is now in Florida helping him. There's the combination that should make Ponzi tremble!

Just a few days too late for our last set of notes I received a letter from Al Clough. Al is out in Missouri with the State Highway Commission. Here is part of his letter: "Your long-continued cries for more news have at last moved me to take pity on you and so, as a former member of the Class of 1923, I will write you a few lines advising you of my present whereabouts. I am employed as an engineer in the materials department of the Missouri State Highway Commission, and am stationed in Kansas City. My work is chiefly among the sand plants in the Kaw River valley in eastern Kansas. Early in April, I was married to Miss Bertha Rugg of Lowell, Mass. It has been a long time since I met any Technology men. As far as I know no others are employed by this department and I have not met any elsewhere. I receive The Review regularly and take great pleasure in reading the class notes. Although this letter is very brief, perhaps it will do its bit toward helping you solve the news-shortage problem." Our congratulations seem a little late, Al, but they are none the less hearty. Thanks for writing, too. We hope more will follow your example.

Arne Ronka has gone down to Texas for the winter and is letting Stone and Webster pay his bills. His last known address was Beaumont, Texas. Speak up, Arne, have you a new one now? — Sheiry has left the employ of this popular firm. He was working on the new Twin City Ford Plant but is now back at the 'Stute in the Civil Engineering department initiating the coming generation of engineers into the mysteries of the tape and transit. He is working with Professor Howard. — Art Davenport, as far as we can find out, is still with Stone and Webster somewhere in the country.

Bert McKittrick has returned from his honeymoon and is now making his home at Lowell, Mass. — Ed Averill has left his civil engineering job in Dedham and his whereabouts now are unknown. If anybody finds him, please let us know. He is under suspicion of pulling off the same stunt that Bert McKittrick did a short time ago. Are you married yet, Ed? If you don't tell us, how are we to know when to send congratulations? — Pomy hasn't been heard from yet. Any one knowing anything about him will be doing us a great favor by dropping us a line.

Unity Chase and myself are still on the Telephone Company's payroll. Chasey continues in the exchange fundamental plan department, while I have just finished up my job on the New England rate cases and am now working on toll cable engineering.

We seem to have fallen off this month in our quota of weddings. What's the reason? Probably the coal shortage is to blame — well June is coming; just keep up your courage and don't forget to send us an announcement when the event does come off.

The next time our course notes appear in The Review Jim Robbins will be on the job again unless he gets another foolish notion into his head and sails for Africa or India. Please send along any info that you can scrape up either to Jim at 42 Oak Street, Belmont, Mass., or to myself. I will sign off, now, as Secretary of Course I until another emergency arises.

ROBERT E. HENDRIE, *Acting Secretary*,
12 Newton St., Cambridge, Mass.

COURSE VI-A

Charlie Burke tells me that he ran into Bill Appleton in South Station some time ago. Bill has left New York, where he toiled for so long for the United Light and Power and is now located in Gary, Ind., where he holds down the job of distribution engineer for the Gary Light, Heat and Power Company.

You boys who are freezing up these cold days should envy Paul Blackwell. He's doing quite well down in Florida, so they say, which territory he has under his charge as street lighting specialist for the General Electric.

I received an interesting letter from Charlie Koch the other day. He says: "Just happened to read the January Review and you talk about Paul Wilkins having a lady friend. Don't you know that the poor chap is married?" No, we didn't know but do now and further information on the subject would be appreciated. Charlie claims to be busy as can be, so any sudden developments along the line of induction motors will undoubtedly be the result of his labors.

J. H. THOMPSON, *Secretary*,
1008 Beacon St., Brookline, Mass.

COURSE XIII

After almost unbelievable effort the following facts were rustled from members of the Course XIII. The dirt is as follows: On calling the roll this year we find that Archie Williams is still at the Hood Rubber Company. From all reports, he is still in the engineering department and is apparently getting along first rate. He has been joined there by P. D. Fuller who is ably assisting in the planning department.

Bill McNary, Cliff Swaine and Win Warner are still remaining true to the profession at John Alden's — Met our good friend from below the line, Igartua, on the Elevated a short time ago at which time he bade me a hasty goodbye as he was sailing the next day for Buenos Aires. — I believe that Bertino is still at Fore River. — Alf Bjerknas is back at the Institute this term finishing up for his degree. — I received a letter from Klikoff recently in which he gave me some very interesting details of the work he is now doing with the Air Craft Development Corporation on the design of a new dirigible. — Dan Webster is still at the Telephone Company and is now located in their new office in the Liberty Exchange Building.

A number of letters sent out to some of the boys have elicited no response. If you have recently changed your address your correspondent would appreciate your advising him of your present location.

CLARENCE H. CHAISSON, *Secretary*,
625 Putnam Ave., Cambridge, Mass.

'24

The most important thing to talk about since our last appearance in these columns is the part which the Class of 1924 played in the annual Alumni Banquet in Boston early in January. Bill Robinson was in Hartford the Monday after and Brownie of Course VI who is permanently attached to Hartford with myself took him up to the top floor of our largest office buildings for dinner and it was there that I got all the

1924 Continued

details. There were a dozen or more members of the Class at the banquet and from reports we must have taken away some of the honors for visible representation. Bill had his cow-bell there, of course, and that started everything off. The first cheer that the Class gave won a round of applause from the other classes. It was so good that the Boston *Globe* the next day in their cartoons of the dinner showed a group of men cheering "'24, '24, '24." But the most audacious act was when Bill happened to think that it would be a good idea for the Class to have the soloist of the evening partake of the ice cream course with our Class (Brownie told me all this). So after getting the requisite permission, Bill very handsomely went up to the balcony from which she was singing and invited her to come down and sit with a real Class. She accepted and need we say it created quite a little excitement among the other classes when it was seen that they had all missed their opportunity? And when it was all over Bill took her to the train, since she lived in Worcester. And speaking of it all, Bill said it was worth it. While at the banquet Bill and a couple of other fellows laid bets that the first one to get married would forfeit five dollars to the other two. And then he turns around and puts his five dollars in jeopardy by taking a very nice and altogether talented young lady home, or as near there as he could.

And while he was in Hartford, we gave every one in the Courses who hadn't written to their Secretaries an awful panning. It was general in nature, no names were mentioned, but we certainly let off some steam on those who had been negligent. Being general in nature, it didn't leave anyone out. So if you remember that your ears were burning about 11.30 on the evening of January 11, you will know that we meant you. There is absolutely no other way out of it. If you fellows want to see notes, nice long ones every month, you have got to do your share and write in to your Secretary or the Gensec.

This was the month in accordance with our newly inaugurated schedule upon which we should have had notes from the first half of the Class. Some Courses weren't able to appear. The Secretaries of these Courses and their addresses are as follows: Fred Hungerford, 259 St. Paul Street, Brookline and Edward Hanley, 29 Park Avenue, Whitman, Mass., Course III; Henry Perra, Apartment 36, 195 Claremont Avenue, New York City, Course IV; Howard Fitz, 37 Rockland Street, Melrose Highlands, Mass., Course V; and Helen Hardy, 80 Park Place, Newark, N. J., Course VI. May I reiterate what I said last month that if you are in this group it is the signal for you to sit down and write a letter within a week after the receipt of The Review. Then you can be assured of seeing lots of news about your Course in two months. If you will do your part the Course Secs will do theirs and by a system of coöperation we will get the best notes in The Review just as we are the best Class that ever left the 'Stute.

And now I have a little G. E. news. Jack Parsons was assigned from the Schenectady plant to Lynn for three months' special study in street lighting. — J. C. L. Wong has completed his student training course at the Lynn Works and has been sent to a shipyard in Belfast, Ireland, for further study. — Raymond Johnson was transferred from Schenectady to Lynn for special training. — And Bill, himself, is also with the General Electric Company. In fact it was due to business in connection with his work that he was able to stop off in Hartford. He is doing street lighting work, particularly on the publicity end of it. His home address due to a recent change is 64 Chandler Street, West Somerville, Mass.

HAROLD G. DONOVAN, *General Secretary*,
80 Farmington Ave., Hartford, Conn.

COURSE I

Since issuing his last scandal sheet your Secretary has been privileged to come face to face with several of the famous tribe. To be chronological I will start off with Tapley, who appeared on the scene here in the Hub a few days before Christmas. After much wild ringing of the office bells I was informed by the damsel who presides over our dialing machine that someone waited without. She didn't say without what. I proceeded to advance toward the reception hall ready to do battle with the most formidable bill collector and found — only Tapley. With great relief at having been spared a financial battle I ushered him into my private office with its invisible partitions and we proceeded to have a heart-to-heart talk on the low pay of engineers. I will repeat for the benefit of those who have not bothered to read my previous essays that Tap is with the District Engineer's office in Louisville, Ky. This office covers a large part of the Ohio River work and Tap is doing hydraulic design work under Colonel Spaulding, who was previously chief engineer at Muscle Shoals. Tap said that

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there is some possibility that Larry Feagan will be transferred over to Louisville. What with all the '24-ers who are either teaching at school or working for the Government it looks as if the world were trying to pull itself up by the boot-straps.

After persuading the boss that there was no use in my coming to work the day after Christmas I hied myself off to the mosquito state to spend the holidays with my folks. B. J. Fletcher and Jack Nevin were both in New York so on the Sunday evening after Christmas, as I was on my way back here, we staged a merrie reunion. It lasted until there was just sufficient time for me to navigate to the Grand Central to board the midnight train which was to bring me away from pipe dreams and reminiscences back to hard, cold realities. It did my heart good to see Curley and Jack and it was like old times for sure. Had they not forbade me to publish a report of our meeting it would make wonderful copy for this magazine. Suffice it to say that both were hale and hearty and happy with their work in the great outdoors where men are men and women don't exist. Curley is getting to be a regular thin-blooded Johnny Reb and the rugged New England climate with its oscillating thermometer no longer appeals to him. He is slated for some construction work with the Georgia Railway Power and Light.

A few days after returning to Boston I was busily pushing my pen when the phone rang and I was greeted by Ollie Jones' fair voice. Ollie had come east to New York for the holidays and was taking in Boston on his return to Jackson, Mich. We had lunch together and compared notes on the trials of this life. Ollie is making progress with the Commonwealth Power Corporation which operates several public utilities throughout Michigan. Paul Sharkey is also with the same outfit.

Had a letter the other day from Ed Moll. Ed is now in Biddeford, Me., as utility engineer for the Pepperhill Manufacturing Company, the world's largest manufacturer of sheets. He writes that Jerry Dalton and Chuck Kuhn are in the concrete tile game in Winter Haven and Gaines City, Fla. I have also heard that Don Moore is in the land of opportunity with a contractor named Daly, in Clearwater. May the Class have many millionaires!

I received Christmas cards from Ed Winiger, Dick Lassiter and Bert Read. Many thanks but how's for writing me a *letter* wishing me a Happy New Year?

In our next month's issue we will print a special article entitled, "What has become of Dan Sayre?" This article for which we have the exclusive rights represents months of investigation. Watch for the next issue!

JOHN D. FITCH, *Secretary*,
c/o C. T. Main, Engineer, 200 Devonshire St., Boston, Mass.

COURSE III

And now another member of the Class has wandered into the treacherous way of matrimony. The latest addition to the list of those who have forsaken the path of single blessedness is that of George Neitlich. He was married on New Year's Day to Miss Bessie Teplitz. George, you know, is in the business of selling insurance. We all extend to him our most sincere congratulations and best wishes.

I rather wish some of the other members of this Course would do likewise. You all seem to think the only important thing that should get into The Review is an announcement of your engagement or marriage. If so, then I wish you would all go and do it. But I could use information about any change of business you make, whether you have been promoted to the secretary's job, or received any other minor appointment, or whether you have met any members of the Class in your wanderings.

For example, I am still at the Harvard School of Business Administration and find it as hard as Technology ever was. Just now I am in the midst of the mid-year exams which isn't much to make any one cheerful. They promise to be just as hard as any we ever took in Course III and when I have them off my chest I hope to find time enough to get after a couple of you fellows at a time so this Course can appear when it should.

CHARLES A. FRANK, JR., *Secretary*,
3 Concord Ave., Cambridge, Mass.

COURSE XV

Out of 141 members of this Course, there were on January 1 fifty-seven paid members of the Alumni Association. This isn't exactly the best showing of which we are capable. Sorry we have to keep talking about this matter, but we know that we can do better than forty per cent paid. Your Secretary is personally soliciting those

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who have not paid. He is relying on you fellows to talk it up to any of these delinquents whom you may meet.

We have at hand a letter from Julian Joffe, who is Secretary of the New York Chapter of the Society of Industrial Engineers. He says: "Will you be good enough to include in your column in The Review a short notice about the New York Chapter of the Society of Industrial Engineers? About two months ago we sent notices to all graduates of the Class of 1924 living in New York City. To date three have answered, only two of whom have shown up at our meetings. We hold meetings upon the first Tuesday of each month, usually at the Café Boulevard, 41st Street, east of Broadway. It is certainly worth while for the budding industrial magnates to attend these meetings because of the associations developed." (We understand that Roland Black, when he is not increasing rates for the Telephone Company, is a regular attendant at these meetings.)

Sam Zerkowsky came in the other day to tell us that he is now learning the retail store game with Filene's here in Boston. Sam, before his coming East this fall, had been in the Middle West with the Szepesi organization. — Harry Kurzman writes us a very interesting letter concerning his experiences since graduation, prefacing his account with expressions of sympathy for your Secretary, which are received in the spirit. We quote Harry: "After leaving Technology I went to Kurzman's in New York, where I acted as advertising manager and purchasing agent. In this job I was agreeably surprised several times to have some old Techmate drop in to try to sell me something. I have left that job behind and can now proudly say that I am one of the few Course XV men who have followed the profession of management engineering. I have been fortunate in connecting with Mr. Eugene Szepesi, who is not only a brilliant associate and disciple of Mr. Emerson, himself, but who is a recognized expert in the art of management in the textile field. I have done some work on standardization in a Passaic woolen mill and am now working on a most interesting and difficult problem of reorganizing the management of the Rockland Finishing Company, one of the country's largest print works, located at Garnerville, near Haverstraw, N. Y. With one exception I am the only young college man in this plant of about 1,000 workers. There are real opportunities in this field for the young Technology graduate. I have seen several of the old gang. Dave Lasser is production manager of Halerpin Mills and in a few minutes' talk with him he gave me a vivid impression of the fact that he has applied his Technology training with remarkable success to the knitting game. Ed Dunleavy is an engineer for the City of New York with his eyes set on a new development in motion picture photography. I should be very glad to hear from any of the fellows who may sneak off a few minutes to pen a line to an old classmate." Harry's address is 780 West End Avenue, New York City.

Congratulations are due Sam Graham. The following announcement appeared in the Boston *Transcript* of Saturday, January 2: "At an informal tea at the home of her aunt, Mrs. George J. Porter, of Linnaean Street, Cambridge, on New Year's afternoon, announcement was made of the engagement of Miss Barbara Marvin, of Cambridge, to Samuel Lowery Graham of Lake Providence, La. Miss Marvin is the daughter of the late George E. Marvin and Julia Gaskill Marvin. She was graduated from Radcliffe College in the Class of 1923 and received a master of arts degree there last June. She is now a research assistant in the economics department of Harvard University. Mr. Graham, a son of Harry Hardeman Graham of Lake Providence, is a graduate of the Massachusetts Institute of Technology, of the Class of 1924. He is engaged in civil engineering work in Los Angeles, Calif."

JOHN O. HOLDEN, *Secretary*,
110 Monroe Road, Quincy, Mass.

'25

No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the March issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to Charles R. Muhlenberg, Secretary, at 22 East 38th Street, New York City.

Professor Charles E. Locke reports that I. M. Symonds, '25, is still getting valuable experience in the ore dressing plant of the Inspiration Copper Company in Arizona. About September 1 he was transferred from the Operating Department to the office to keep the records on all experimental work. Four months later he made another transfer to the so-called "bull gang" in the ball mill repair shop, which offers a splendid opportunity for physical development.

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For general information, requirements for admission, brief description of courses, etc., ask for Bulletin A.

For schedules of courses and detailed description of subjects of instruction, ask for Bulletin B.

For the announcement of courses offered in the Summer Session, ask for Bulletin C.

For information on Advanced Study and Research, ask for Bulletin D.

For the report of the President and the Treasurer, ask for Bulletin E.

For a popularly written explanation of Engineering Course content, ask for Bulletin Y.

For these bulletins, or for any other information, address

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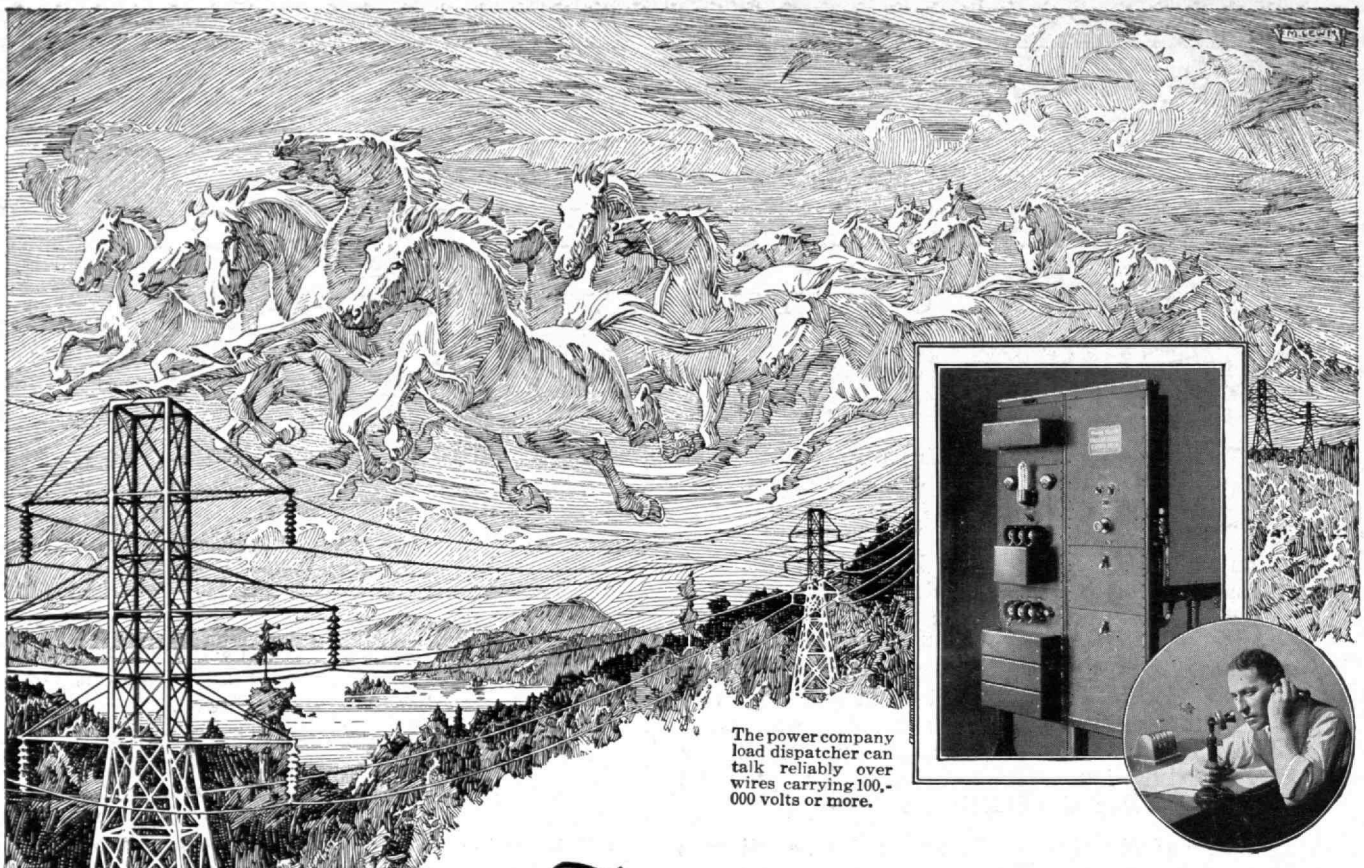

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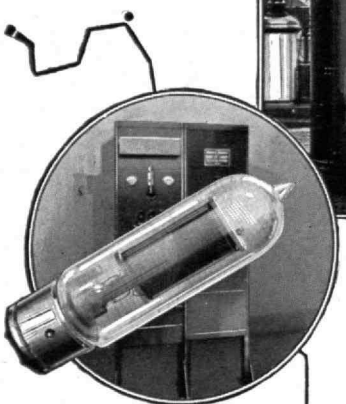

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